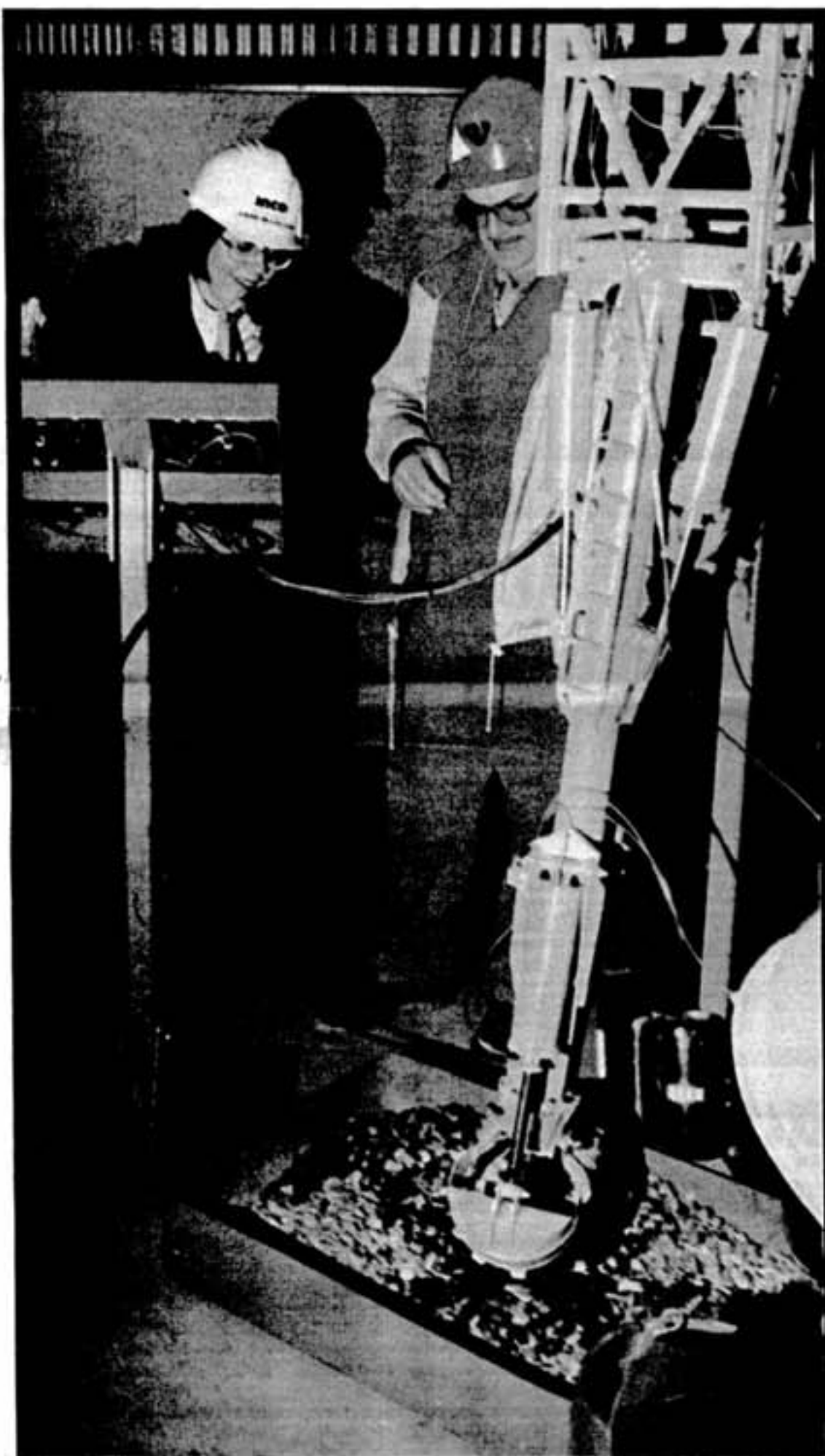




An Inco tailings marauder: Pest or Pal? See Page 10.



During a tour of the Victor site, Natural Resources Minister Anne McLellan tried her hand at the working model of the mucking machine to be used in the Victor shaft while site manager Fern Larose of J.S. Redpath offered instructions. The minister also visited Stobie Mine where she was taken on an underground tour. See more pictures and story on pages 8 & 9.

## Inco-Cambrian teamwork expands

The ink was barely dry on Inco-Cambrian training expansion agreements as Inco Construction crews and college contractors were putting the final touches on a new college satellite training facility in a former Azilda high school.

"The final touches on renovation work at the school will be completed by the end of the month," said maintenance training leader Brian Harris. "Inco apprentices should be attending classes in December." Inco Construction and col-

lege contractors divided up the modifications, renovations and installation of training equipment at Rayside-Balfour's former Rayside Secondary School.

In what Cambrian President Glenn Crombie called an enhanced partnership that continues to provide a dynamic exchange of talent and expertise, the college will gradually take over the training of Inco heavy duty equipment mechanic apprentices at the former school.

*continued on page 2*

## Volunteers spread emergency message

Know What To Do. ACT Accordingly. That's the message delivered to the public and employees during this year's fourth annual Emergency Awareness Campaign.

In a public statement that formed part of this campaign, lineman Gaetan Denis described his group's commitment to public safety.

"We have undertaken the responsibility of getting to-

gether to form a new Emergency Preparedness Committee," Gaetan said. "The importance of this committee is that it involves everybody's opinion from various departments in the Smelter Complex."

Gaetan was one of five Inco employees featured in ads in the Sudbury Star, Walden Observer and South Side Story. Daily radio spots were pro-

*continued on page 3*

## Assistance for cancer patients

When plant protection officer Cy MacLeod visited the doctor four years ago with severe diarrhea, he had no idea the diagnosis would be cancer.

When it was, he had no one to talk to.

Across Northern Ontario, thousands like Cy face the same crisis every year - diagnosed with cancer and looking for the emotional support of someone who has "been there".

Now, under a new long distance peer support pilot program called Cancer Connection, people living with cancer in Northern Ontario are matched with volunteers in

other parts of the province who provide peer support on the phone.

"Cancer Connection was launched Nov. 1 as a joint venture of the Canadian Cancer Society in Ontario and the Cancer Information Service (CIS) to provide peer support for people unable to receive it in their own community," said Al Burns, a claims administrator in Inco's Compensation Office and member of the Board of Directors for the Sudbury Branch of the Canadian Cancer Society.

"In every community there are cancer patients unable to find peer support close to home because a survivor cannot

*continued on page 2*

## Sharing experience therapy for patients

*continued from page 1*  
be found who closely matches the patient's life experiences. With this program, one confidential toll-free telephone call to CIS allows hundreds of patients in Northern Ontario to request a peer support volunteer."

Callers to CIS are first asked to answer a few brief questions about their diag-

nosis, treatment, family status, sex, age and geographic location, said Al. Then each patient is matched to a trained Canadian Cancer Society volunteer and cancer survivor who has had the same type of cancer and shares some of the same characteristics as the person seeking help.

Cy MacLeod is a colon cancer survivor. He had three feet

of bowel removed at the time of his diagnosis and continues to visit the doctor twice yearly for an ultrasound and scope.

Although he had no one to talk to at the time, he has since found many others who faced similar situations.

"I'm not the only person at Inco who had this (colon cancer)," he said. "It's very common and many people I've

met have had much more severe cases than my own. I was very lucky they operated and got it out as quickly as they did."

Cy found talking to others about shared experiences to be therapeutic for both individuals involved. He sees no reason why others with cancer can't realize those same ben-

efits through a program such as Cancer Connection.

"I think the program is a good idea," he said. "It's the fear of the unknown that haunts people the most. It's important to realize that cancer doesn't have to be the end of the world and someone who has lived through it can explain this to people."

"In my own situation, it was more traumatic after surgery when I went through a period of depression. In cases like this it always helps to talk."

At Inco, there are numerous employees and pensioners whose lives have been touched by cancer either through a family member or themselves, said Al. And there are many others who volunteer their time helping groups like the Canadian Cancer Society. "Cancer Connection is one more tool available to make things easier for the patient."

The toll-free Cancer Connection number is 1-800-263-6750.

## Training a 2-way experience

*continued from page 1*  
After that time, the role of Inco people will be to assure the program maintains the technology and effectiveness required in the workplace. This will free up the current Inco training staff to concentrate on the plant specific training identified by the Division Maintenance Training Needs Analysis.

Speaking at a ceremony where he and Ontario Divi-

sion President Jim Ashcroft signed the documents that expand the 25 years of cooperation between Inco and the college, Mr. Crombie said he was pleased with past Inco participation and is eager to pursue a future where an enhanced partnership that marries education and industry "positions us to face the 21st Century."

"In training and experience we don't have it all. We have some things Inco doesn't have,"

said Mr. Crombie, "but Inco has some things that we don't have. The dynamic exchange of talent and expertise between Cambrian and Inco has resulted in the development of many unique, innovative and highly-specialized training programs."

A general agreement signed reflects a joint commitment to collaboration in educational, social and cultural initiatives that will help the continued

development and prosperity of the community. The second agreement, the first specific initiative under the general agreement, sees Cambrian and Inco working together to provide the apprenticeship training.

"For the first year we'll be learning from Inco people to become familiar with their training priorities and training standards," said Mr. Crombie.



## Engineering Lunch

Angela Grieve, a British teacher in North America to get ideas on how to encourage more women to study engineering, was the catalyst in bringing 14 of Inco's female engineers together. As part of her eight-week North American tour getting ideas for her pet project, the Winston Churchill Memorial Trust recipient toured Garson Mine with engineer Pam Paradis-Sokoloski. She had a chance to meet more female engineers at the Copper Cliff Club. She's not in the photo because she took it. With her at lunch were, clockwise from the left, Pam Paradis-Sokoloski, Danielle Tardif of Mines Technical Services in the General Office, Nathalie Lemay (Frood), Sue Tessier (Smelter), Samantha Espley (Mines Research), Gail MacDonald (Smelter), Lorri McCann (General Engineering), Mary Dubel (Nickel Refinery), Lisa Lanteligne (General Engineering), Olga Kovalik (South Mine), Tiffany Dubé (Creighton), Heather White (Little Stobie), Christina Visser (General Engineering) and Nathalie Leblanc (North Mine).

## Energy success outlined at Hydro meet



Conference keynote speaker Andy Lemay.

The mining industry was the strongest private sector participant in a recent Ontario Hydro conference, and Ontario Division's energy coordinator keynote speaker Andy Lemay drove home the industry's commit-

ment to energy conservation by outlining Inco's impressive efforts in recent years.

Andy set the tone for the entire conference by outlining how significant energy efficiency achievements were made at Inco's Ontario Division. He spoke about the need to make a visible commitment, develop teams and teamwork and make it a voluntary approach. He stressed the main strategies as 'Turn it off, Turn it down' and 'Use high-efficiency equipment.'

"We have to integrate energy efficiency into all activities," he told the Ontario Hydro Conference on Energy Efficiency and Sustainable Development. "There is nothing we do at work or at home that doesn't have an energy component."

He said that Inco improved its energy efficiency by 20 per cent from 1980 to 1991 in terms of BTUs per pound of

copper/nickel. Since then, he said, reductions include a further 7.2 per cent from 1992 to 1993 and an additional 3.9 per cent from 1993 to 1995.

Organized by Ontario Hydro, the event included representatives from Placer Dome Canada, Barrick Gold and the Ontario Mining Association.

John Fox, Ontario Hydro Vice-President and Managing Director of the Customer Services Group, announced there would be no increase in electricity rates for industrial and other customers in 1996. He added that there are some optional rates available for industry along with "experimental" load retention and economic development rates.

The objectives of this two-day seminar were to showcase the latest developments in energy efficiency and sustainable energy development, share experiences through

case studies, exchange ideas and solutions, and raise the level of awareness of energy efficiency and sustainable energy development.

Other speakers from inside and outside of Ontario Hydro presented details on how to improve energy efficiency through the implementation of lighting programs, high-efficiency motors, heat pumps and other technologies and devices.

Ontario Hydro used the opportunity to show that it is no slouch when it comes to energy efficiency. Jim McConnach, Manager of Internal Energy Efficiency for Ontario Hydro, said Ontario Hydro uses or loses 10 per cent of what it produces.

"Ontario Hydro is its own largest customer," he said. "Because we make the product, we probably put less value on it than others do." He emphasized that this atti-

tude is now changing.

Ontario Hydro estimates the value of the electricity it will save from 1994 to 1997, through its new energy efficiency initiatives, at about \$50 million. Mr. Fox stated that Ontario Hydro needed to clean up its own house in regards to energy efficiency. It is making improvements in that area and it sees improved efficiency as one of its main tools to become a more competitive supplier of electricity.

According to Peter McBride of the Ontario Mining Association, the conference was worthwhile. "It helped to show the mining industry as a leader in energy efficiency," he said. "And it provided an opportunity to remind Mr. Fox that industrial electricity rates in Ontario remain uncompetitive. The event was educational along with providing the opportunity of making new contacts."

# Public, particularly kids, get into ACT



Tom Gunn looks on while three-year-old David Jakob finds interesting reading at Inco's booth at the New Sudbury Centre under the watchful eye of mom, Colleen Jakob. David is the grandson of Inco pensioner Robert Jakob.

*continued from page 1*  
moted on the Telemedia network.

Gaetan, rehabilitation nurse Carrie Bois, plant protection officer Don Vaillancourt, Oxygen Plant assistant chief engineer Barry Muncaster and Nickel Refinery process operator Terry Closs contributed to the Inco media blitz to inform the public of what people at Inco are doing and to appeal to the public to do its part.

"The message is getting out," said emergency preparedness coordinator Ellen Heale. "It's quite evident from school kids and many others in the community that we are making headway in educating the public about its role if an emergency situation arises."

Ellen said she was particularly gratified at the awareness of the young students. "They are very good messengers to take the information back to their families."

Presentations were made at 12 local schools to more than 950 primary school students. Students had wonderful stories to share on "What is an emergency?" and "Do you know my Father/Mother? They work for Inco?"

When Inco people such as Berno Wenzl, Paul Yearwood, Gary Hughes, Tim Lauber, Mike McCann, Cory McPhee and Carolyn Hunt visited schools, they found a growing awareness of smoke detectors, dialing 911 for emergency services and general safety around the house.

Speaking on behalf of the

Joint Emergency Preparedness Task Force, Ellen thanked the many volunteers for their assistance and support during the fourth Annual Emergency Awareness Campaign.

Six days of mall displays provided the opportunity to distribute emergency preparedness information to the public and allowed for questions and discussion. Winners of draws for an emergency car care kit and family first aid kit were Jonathan Bolton of Moxam's Landing and Irene Labré of Jack Pine Crescent.

Information was mailed to 1,800 residents in the southend of Sudbury and flyers were distributed to 3,350 residents in Copper Cliff and Walden.

InContact TV featured interviews with local residents on their awareness of Inco's emergency preparedness.

Some groups, such as Inco's Transportation department, held their own campaign. Transportation ran an emergency awareness poster contest for children of employees.



Gary Hughes delivers the Emergency Awareness Week message to enthusiastic Grades 1 and 2 youngsters at Corpus Christi elementary school.

As well as educating the kids, the contest added a welcome flash of color to offices and hallways.

An emergency preparedness drill was conducted during the week. The scenario involved a carbonyl leak in the IPC Utilities area of the Nickel

Refinery. This resulted in a Level 2 situation and involved the use of emergency protocols including the public address system, group telephone calls and notifying No.1 First Aid. The emergency horns, which are only used in a Level 3 emergency, were not activated.



Train conductor Keith Constantineau mounts his children's poster on the Transportation wall. Megan and Kyle were just two of the youngsters who entered the Transportation contest.

## Inco goal is accident elimination

When it comes to safety, Inco is preparing for perfection.

"With a commitment from management and through the involvement and determination of our employees," said Ontario Division's superintendent of Safety Ron Rafuse, "we're striving for a frequency of zero injuries both on and off the job."

While safety statistics in the mining industry have been enormously improved to a point where mining compares favorably with many surface occupations, the industry's last remaining incidents are now being squeezed

out through a redoubling of efforts in all areas of safety.

Focused on safety more than ever before, the Division aims to reduce the disabling injury frequency by more than half next year alone.

"The idea is to reach a zero frequency in the Division," said Ron. "There's no reason we can't reach it, particularly when everyone - employees and management - works together."

A major change in the Division is the phasing out of the sole emphasis on the 'lost time accident' category, replaced by a disabling injury measurement that helps provide a much more accurate picture of the company's safety performance.

The new disabling injury frequency measurement combines two previously-used classifications to measure the Division's safety performance.

By combining the modified work and lost time accident classifications in disabling injuries measurement, a more accurate picture of the safety performance can be created.

"If we are to reach the zero disabling injury target we need to know exactly how we are doing and where the improvements must be made," said Ron.

The new category is simple. Disabling injuries apply to those people who are unable to report to their jobs on the

next regularly-scheduled shift or are unable to perform all the regular duties of their job on the next regular shift.

Inco uses an international rating system based on 100 employees working an average of 2,000 hours a year for a total of 200,000 hours. When an injury occurs, the accident is multiplied by 200,000 and divided by the actual hours worked up to that point. If, for example, a plant has 100 employees who work one year and have one accident, they will have a frequency of one.

"What we are basically driving at with the new system isn't better recording, but to eliminate the injury hap-

pening in the first place. An accurate record of where and how these things happen is the best way to avoid them in the future," said Ron. "It'll allow us to track, analyze and interpret what's happening much more accurately."

Ron said the redoubled safety effort in all levels at Inco is not only a refinement of the Division's own findings, but also involves implementing the best features of the safety programs of other companies that are leaders in the field.

"We have our sights set on no injuries and we have every intention of reaching our goal," said Ron.

# Inco greenhouse first college classroom



Student Sylvie Fillon, 20, plants seedlings at the Inco greenhouse. Standing are Collège Boréal forestry professor Marc Hebert, student Guy Trudel, 21, and Inco grounds supervisor Mike Peters.

Ground preparation has barely begun at the future site of Collège Boréal, yet the French college has just recently opened its newest classroom.

The Inco greenhouse.

"We are in an interim location while the college is built," said forestry professor Marc Hebert, "but it was essential that we have access to a greenhouse to make the course of the quality we want. We approached Inco to help us out."

For the next two years, forestry students from the college will be regular visitors to the greenhouse in a mutual arrangement that grounds supervisor Mike Peters thinks may well be a benefit not only to the college but Inco as well.

"There's no doubt that we could tap into some of the work they do," said Mike.

"When they go out on projects like seed collecting, we could ask them to provide us with some samples of whatever they come up with. I think this arrangement is a win-win situation."

Both Inco and college timetables dovetail. "The timing was great for it," said Mike. "The college needs the greenhouse from early fall until January and that's exactly the time when we're not seeding."

Mike said students will be at the greenhouse at least every Tuesday morning. Other visits will be for monitoring the seedlings' progress and other updates.

The students' greenhouse work will conclude with a roundup of information and observations and a written report that Mike said could also be of value to Inco's agriculture department.



## World's speediest scoop?

The combination of low light and the camera's slow shutter speed makes this Stobie scooptram blur like a hot rod. Actually, the scoop is automated and can be controlled remotely from surface. The scoop is just one of a number of automated initiatives at Stobie designed to enhance safety, increase productivity and keep Inco the world leader in new technology. The overhead light track, appearing like a glowing string, is part of the scoop's guidance system.

## Letters to the Editor

### CANADIAN SKI PATROL SYSTEM ALGONQUIN ZONE

Safety



Service

edges pride in presenting this

### SPECIAL AWARD

Inco Limited - Inco Triangle

SPECIAL AWARD IS GIVEN AS A TOKEN OF OUR APPRECIATION  
AND DEEP GRATITUDE

April 29, 1995

*Shimko*  
COO PRESIDENT

*John*  
MANAGING DIRECTOR

Dear sir,

On behalf of the Canadian Ski Patrol System, Algonquin Zone, I am pleased to present the Inco Triangle with the Canadian Ski Patrol Special Award.

This award is being presented for your outstanding article on the Canadian Ski Patrol System, 'Serving first aid on Sudbury slopes' in the February 1995 edition.

We hope that articles such as yours will promote safety at our local ski areas and encourage interested parties to join our organization.

Your help is greatly appreciated by all skiers in the area.

Michael Dudar

Editor's Note: Public Affairs officer Cory McPhee wrote the article.

Dear sir,

After 23 years underground at various mines for Inco, I took early retirement and moved to the west coast. Although I am enjoying my retirement, a certain nostalgia remains for those days in the mines and the people I knew there.

This letter is to thank you for sending me the news and views by way of your excellent publication. I find it quite pleasant to sit down and re-acquaint myself with what's happening back there.

I understand there are other Inco retirees on the west coast though I've yet to meet one. The big attraction here is the mild weather - long growing season and year-round fishing.

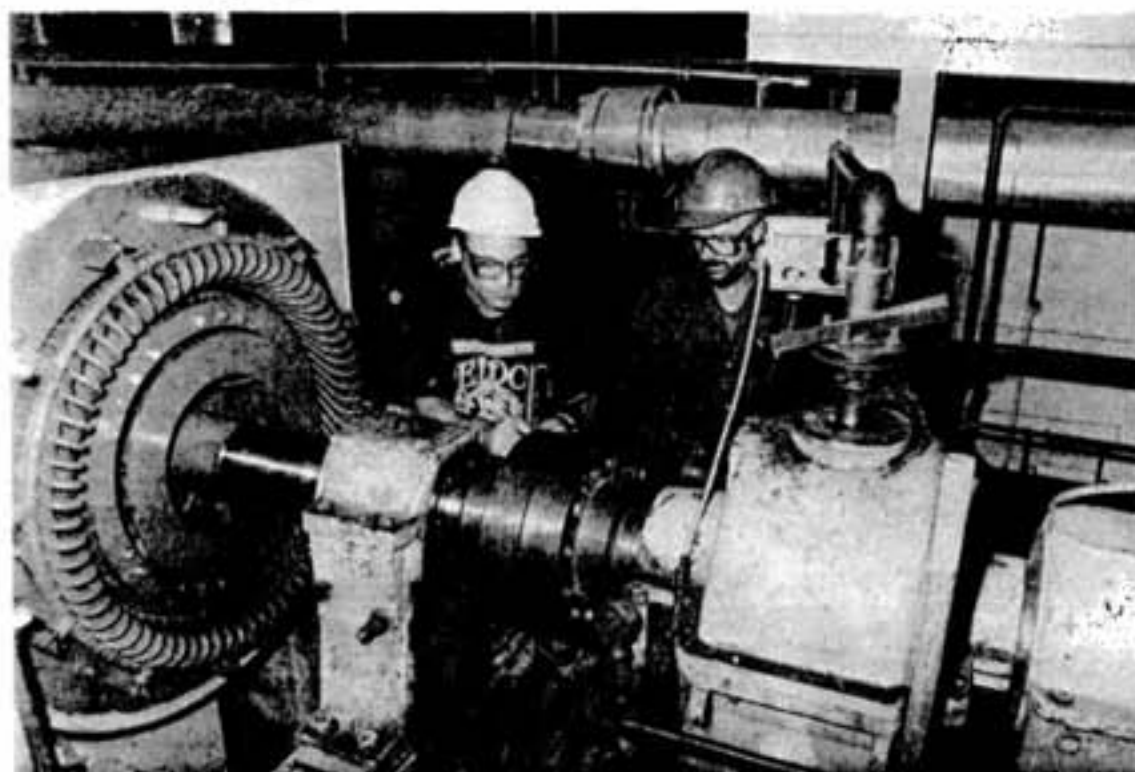
So thanks again and keep those Triangles coming.

A.J. Stewart,  
Hagensborg, B.C.

# MAKING *Change*

Time reduced from 5 weeks to 2

## Oxygen Plant task a study in teamwork



Armand Gagnon and Marc Rheume work on the 1,600-horsepower blower at the Oxygen Plant.



Hubert Seguin, Tom Hughes, Lloyd Olson and Brian Burton: doing in two weeks what would normally take five. Missing when this picture was taken was teammate Andy Bazinet.

**L**ook anywhere today. The only constant you'll see is rapid change.

It's no different in the Inco workplace where keeping ahead of the competition demands a highly-motivated and skilled workforce, teamwork, flexibility, versatility, rapid deployment, never-ending skills upgrading, investments in high technology and many other factors.

Can Inco employees adjust?

"No question that they can," said Oxygen Plant supervisor Gerry Gauthier. "Some already have."

Gerry should know. He heads up a vital link in the Division's production chain where a major snag can mean production setbacks. By November, three months after the shutdown work, things were running as smoothly as ever, he'll tell you, at least in part because Inco people are successfully adapting to change.

Gerry was referring to the Oxygen Plant's annual maintenance and repair project where crews, on relatively short notice because of the announcement of this year's shortened shutdown, accomplished work in two weeks that normally would have taken five.

"It's an example of what can be done when you work as a team," said technical services coordinator Willy Metson of Divisional Shops. "We discussed every detail with all the people who would be involved and got their ideas about how we were going to accomplish it."

Cooperation among Inco plants was as important as among individual groups. "There was excellent coopera-



Dave Chisholm and Mike Glover worked on the Oxygen Plant's nitrogen compressor.

tion between the Oxygen Plant and the Divisional Shops crews," said John Prudhomme who headed up the project.

"Everybody knew that there was no room for mistakes. The job had to be finished in two weeks, period. There just wasn't any other alternative."

The solution and challenge, develop a schedule which included a dozen people, working 12-hour shifts, 24 hours a day, seven days a week for two weeks in order to complete the plant maintenance.

"It had never been tried under this kind of pressure before," said John. "If it was going to work, we knew we all had to be on board and working with the closest kind of teamwork."

And that's exactly how the job was accomplished, he said. "That's despite the record-breaking heatwaves this sum-

mer. The Oxygen Plant isn't the coolest place to work even under ideal conditions, but with outside temperatures soaring it was a blast furnace inside the plant."

John is convinced that it was individual determination as well as teamwork that did the trick. "Our people understood the importance of what they were doing. We had few complaints."

Willy expects that being flexible enough to adjust to rapid changes is becoming more and more important in a continually-evolving workplace.

"This has been a good experience for us," he said. "It's been a wake-up call and teaching tool at the same time. With the experience we've gained, the next time something like this happens we'll be out of the starting gate even faster."



Joe Guido, Richard Temple, Chuck Baird and Vince Carbone in the Dezurik Valve Room.



Dave Barnard checks the 800-horsepower oxygen blower. Missing when the picture was taken was Ron Menard who also worked on the blower.



Gilles Albert, Brian Pearce and Dan Chasse at one of the Dezurik valves ready for the Oxygen Plant.

# MAKING Change

## Millions saved as high-cost work formerly

Spread out in front of Albert Menard are rows of refurbished scooptram brake calipers he's testing carefully before shipment back to the mine. Behind him are more piles waiting to be rebuilt.

"When I started this job a couple of years ago I did one or two brakes a day," said the Divisional Shops brake specialist. "Today I do 10 or more. I love this job."

His one-man operation has saved more than \$200,000 over the past 12 months by taking on work that previously would have gone to outside firms. At the same time, he has aided the shops in their aggressive business philosophy by helping create a new culture of teamwork, initiative, empowerment, ownership and pride that so far has helped bring home almost \$2 million worth of work previously done outside.

When Albert tells you he's the 'superintendent of brakes,' he's only partly kidding. His one-man operation is just one work cell that functions independently as a business venture. The cells do their own scheduling, parts purchasing, record-keeping, planning and even communicating with their customers.

Just about everyone at the shops, working on everything from scissor lift maintenance and repair, steel fabrication and grandesberg car repairs to servicing the Division's fleet of vehicles, has been looking for better ways to save money, improve productivity and reduce turn-around times.

"Over time, we've come up with lots of ideas to make our work easier and improve quality while saving hundreds of thousands in costs," said Ed Wolski, a member of the Mine Dewatering Pump Repair work cell. "I remember when we used to have a dozen or more pumps backed up here, waiting to be repaired. We used to run out of space to store them. Now we're getting one or two at a time and we're able to get them out quickly."

But the repairs, representing \$1.24 million in savings so far this year in reduced contracting out costs, are only part of their success. Like most of the other work cells at the shops, there's direct communications with the customer that's paying dividends.

"We're on a first-name basis with most of the maintenance people at the mines now," said team member Tom Hughes. "The two-way communications has brought excellent cooperation with the mines. The pumps we get now are cleaner, better maintained and with fewer repairs needed. The teamwork has expanded to the customer."

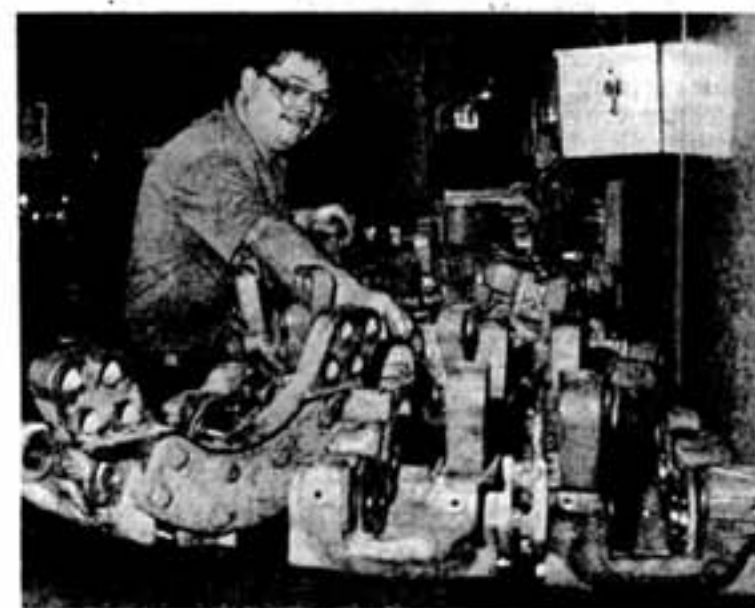
Machinist Lloyd Olson said that in many ways the cell con-



The Mine Pump Repair Cell consists of machinists Jean Guerette, Tom Hughes, Ed Wolski, Pierre Poulin and Lloyd Olson.



Machinists Dave Barnard and Jack Maskell with one of hundreds of bolts and nuts they helped manufacture for a Nickel Refinery rush repair.



Albert Menard is up to his neck in scooptram brake calipers these days. His one-man operation has saved more than \$200,000 in the past 12 months.



It's in rough shape, but the new in-the-hole drill repair team (front to back) Bernie Gravelle, Dan Wilcox, Paul Berube, Carl Vierimaa and Fred Pelletier is eager to bring the piece of equipment back to life for \$40,000 less than the \$100,000 it would cost to do the work outside.

cept has always been there, but it wasn't adequately appreciated before. "Now that we are brought into the decision-making and planning, we run our own jobs. I think it's working out well."

Team members Pierre Poulin and Jean Guerette agree that the cell concept works great and that five heads are better than one when brainstorming for better and more effective ways of doing things.

One of the many ideas that team members have come up with is a \$13 seal around the shaft to stop water going into the pump bearing housing and displacing the oil.

Before the shop's seals were installed, Stobie spent more than \$8,000 annually to keep the pumps topped up with oil. With the seal, the oil cost is down to \$66.

Shops superintendent Ivon Chaumont said the millions in annual contracted out work is the target. He credits the shop's emerging culture as an aggressive business enterprise as well as teamwork and empowerment for the \$2 million dent that's already been made.

"It's also evident that upper management is behind us," said Ivon. "I think our people recognize that."

As an example of management support, he pointed to the Shop's next major move, a commitment to overhaul the almost 60 in-the-hole drill rigs the Division operates.

"When we sent the machines out, we paid an average of \$100,000 per machine," said Ivon. "So we looked at the cost of material, the facilities and equipment we had on hand and discovered we had most of

# MAKING *Change*

## contracted out stays in-house



Machinists Ron Ylitalo, Hubert Seguin and maintenance mechanic Lynne Descary with a submersible pump. The fourth member of the work cell, maintenance mechanic James Joudrey, was not available for the photo.

these things right here to do this job. We just needed some organizing to fit it all in place."

Ivon armed himself with facts, figures and projections and appeared before management committee with an offer of trading a \$125,000 investment in a crane and four new heavy duty equipment mechanics for projected annual savings of \$2.3 million in drill repairs.

The shops got their new crane and mechanics.

The team consists of Carl Vierimaa, Dan Wilcox, Paul Berube, Fred Pelletier and Bernie Gravelle.

In its news image, Div Shops is seen as competitive and aggressive and able to compete for work on the same level playing field as most outside firms. In fact, the shop's work routinely costs Inco customers between eight and 10 per cent less than outsiders.

Many jobs, like the ITH drill rigs, show much greater savings. A drill

overhaul done outside costs Inco about \$100,000. The shops charge \$60,000.

Like many of the work cells at the shops, the ITH group works directly with the customer. They'll even do house calls.

"We're on call 24 hours a day. We'll provide on-site service and even go underground to help with the problem," said Ivon.

The reclaiming of Inco work doesn't only mean the jobs that come into the shop. Shop representatives have gone out to beat the bushes for work . . . and found it.

On hearing about five jobs that were in the process of being awarded outside, Div Shops representatives asked for the chance to compete. The Crean Hill, Frood-Stobie and Clarabelle work was turned over to the Shops and almost \$500,000 was saved in the process. On top of that, they did the job on time and even under the shop's own estimates.



Plate worker Alain Brisson and welder Ken Hill examine a scissor lift. Missing when the picture was taken was Pat Burns, the third member of the work cell.

Ironically, keeping the work at home has not meant unmanageable workloads. "We've just reorganized to take advantage of those things we can do best, the things with the biggest cost sav-

ings and critical needs. By prioritizing, we've managed to trade off low-value in-house work and take on the high-value stuff. I guess you call that working smarter," said Ivon.

"What's all this done

for us here? Morale is way up and safety is higher than it's ever been before. People make their own decisions and take pride in their work. That's made for high quality workmanship here. What we

need to do now is get the word out, to promote what we are capable of doing. Used to our best advantage, these initiatives can affect the bottom line . . . the cost per pound of nickel."

## Salvaging savings . . . literally!



Art Evans and Spencer Sutton with a ventilation fan: scrounging for savings.

There's no shortage of innovative new ideas on how to save a buck among the employees-turned-entrepreneurs who run the business enterprises at Divisional Shops these days.

Take the two-man ventilation fan work cell. Not satisfied with the \$50,000 savings on con-

tracting out expenses they've saved so far this year, machine operator Art Evans and machinist Spencer Sutton decided to look for discarded parts in the backyards of Ontario Division mines like a couple of bank robbers casing their next bank job.

"There was a lot of stuff stored away, prob-

ably forgotten about, misplaced or maybe waiting for the time or manpower to do something with all of it," said Art. "We found blades, cans ( housings) and a lot of other salvageable stuff. There was a fair bit of stuff there."

The team's 'fair bit' turned out to be 10 truckloads of 'stuff.'

Said Art: "I guess there was a fair bit of money there. Maybe a couple hundred thousand . . ."

The two have made several changes, giving the repairs that personal Divisional Shops touch. One was adding sealed bearings to cut underground maintenance, the other was wrapping the electrical boxes with plastic to keep out moisture while being stored outside.

A few bucks and a little time, but it tends to be appreciated by the customer.

They do their own scheduling and filing, track their costs and monitor where the equipment is. A phone line at their worksite means

they have direct communications with their customers.

"You get a lot more work done this way than you did when you used to have someone hanging over your shoulder all day," said Spencer. "It's a lot like running your own business here and that's a lot of fun. I enjoy coming to work."

For the four-member submersible pump repair cell, the job is interesting, rewarding and challenging. "You always find little short cuts, better and more effective ways of doing things as you go," said machinist Ron Ylitalo. "It makes the job easier and the end result is a higher quality job."

The team's better ways of doing things probably accounted for at least part of the \$376,300 savings the repairs have generated over contracting out costs.

Hubert Seguin, James Joudrey and the shop's only woman tradesperson Lynne Descary make up the team.

# Federal Natural Resources Minister Ann

Stobie's Murray Jacobs is encouraged by the flood of high-profile visitors eager to see state-of-the-art mining equipment and techniques.

"The company's a leader in mining," said the in-the-hole driller, "and all these people going through here shows that Stobie is a pioneer even within Inco."

Murray was referring to the visit last month of Anne McLellan, Minister of Natural Resources, Canada, who also visited the Victor site before touring Stobie.

"I guess we've got a lot to show off," said Murray, a miner for more than 26 of his 28 Inco years. "I've seen an incredible amount of change

levels can also help create a strong mining industry by streamlining rules and regulations that can sometimes hinder mining companies in their efforts to stay competitive in a global marketplace.

She wants a new national system to regulate the environmental impact of mine development, thereby eliminating the inconsistencies from province to province.

"Nobody is saying we shouldn't have high standards for the environment, but let's have one set of rules across the country," she said.

The resources minister, along with Inco Chairman and Chief Executive Officer Mike Sopko, Ontario Division President Jim Ashcroft and



Anne McLellan and Mike Sopko buckle up before Stobie Mine superintendent Mike Grace throws the Hummer into gear.



Inco is the kind of company we need in Canada if we are to succeed in the future says federal Natural Resources Minister Anne McLellan.

over the years, but never at today's pace. Every time you turn around, there's something new. These days you've got to be better educated to be a miner. I've tried to keep abreast of the changes, to stay qualified for the job. You have to even more these days."

Ms. McLellan echoed the sentiment, commending Inco for its substantial research initiatives. "This is the kind of company we need in Canada if we are to succeed in the future," she said. "(Inco is) productive, competitive, and committed to the application of high-tech to the more traditional pursuits of mining while understanding the sustainable importance of development."

She said that Inco's balancing of mining with environmental initiatives is the way of the future.

She promised her support in getting the message out not only to the general public across Canada but to her colleagues in Parliament.

"We must remind Canadians about the importance to the economy of our natural resources - particularly mining - in terms of export dollars earned and job creation."

Ms. McLellan said that while Sudburians are very aware of the importance of mining, other Canadians sometimes forget.

She said government at all



Inco geologist Gord Morrison explains the Victor site's geology to Ms. McLellan while Ontario Division president Jim Ashcroft looks on.

dignitaries including Natural Resources deputy minister Jean McCloskey, assistant deputy minister Ron Sully and the minister's senior policy advisor Dan Paszkowski first visited the Victor site where they viewed a variety of displays including the geology of the site, exploration outlines, environmental initiatives and an equipment and minesite development display put on by project contractor J.S. Redpath Group of North Bay.

She showed intense interest, keeping Inco geologists Gord Morrison, Wayne Garland, Hannu Virtanen, Victor project manager Bill

Dawson, Inco biologist Carolyn Hunt and Sudbury Basin exploration manager Bob Martindale busy answering questions as she examined the displays.

Redpath officials were also the subject of keen interest, with visitors focusing on the model of the mucking machine that demonstrated the technique of mucking material in the shaft. The minister tried her hand at the mucking machine model, joking that now that she's trained on the equipment there's a job waiting for her if she ever needs one.

The party then moved outside for a brief tour of the site and some of the features already in place such as the hoist room, collection pond and the actual working mucking machine being used to train employees.

Following media questions, the party left for Stobie Mine where an underground tour included a viewing of the Data solo 1000-Sixty drill that was being operated from surface via remote control and a video camera.

Back on surface, the minister was introduced to Automation Implementation supervisor Peter Golde, roboscoop operator Germaine Labre and drill operators Diana Terbraak and Danny Plante.

The automated equipment operators vacated their seats and turned the controls over to the minister who was delighted at the opportunity to try her hand at operating the state-of-the-art mining equipment.

For Stobie miners such as operating shaft boss Rick Rousseau, the additional traffic created by visitors like the minister may create tighter scheduling, but the extra care is well outweighed by the positive publicity for Stobie.

"I think it lets the world know that we're moving ahead here," he said. "I don't think we'll ever again see the number of people working at Inco that we had at one time and it may be difficult for our sons and daughters to find work here as easily as in the past, but I guess it has to be done if we are going to compete with the rest of the world."



Stobie cagetender Lori Jewell and Anne McLellan enjoy a brief conversation shortly before Lori transported the minister to the mine's 1,900-foot level.



Mike Sopko, Jim Ashcroft and Ms. McLellan get an overview of the work at Victor from Bob Brown, president of J.S. Redpath, the project contractor.

# McLellan tours Victor site, Stobie Mine



Anne McLellan at the controls of the mucking machine model.



The minister (front, centre) and entourage get a first-hand look at exactly where the Stobie ore comes from.



Ontario Division President Jim Ashcroft and the minister share a laugh during the Victor tour.



Inco biologist Carolyn Hunt explains the high priority that environmental efforts have been given in the Victor project to Anne McLellan and Inco Chairman Mike Sopko.



Stobie's tele-guided drill operator Diana Terbraak works the controls.



Inco Chairman and Chief Executive Officer Mike Sopko (right) looks on while Anne McLellan, handles the controls of Stobie Mine's tele-operated scooptram under the direction of operator Germaine Labre. Behind are senior policy advisor Dan Paszkowski, the minister's assistant deputy minister Ron Sully and Stobie superintendent Mike Grace.

# Tailings beetle infestation means success



Professor Joe Shorthouse (left) and Daniel Paquette with a container containing hundreds of bugs that must be examined for carabid beetles. Daniel did the counting.

Where there are wolves there's good hunting. The millions of 'wolves' that prowl the pitch-black Tailings Area night are the strongest indication yet that Inco's agricultural wizards have managed to kick start a healthy, sustainable ecosystem on more than 400 million tons of tailings sand stored on 2,225 hectares west of the Copper Cliff Smelter.

These invaders aren't the long-fanged, lupine variety. These hungry beasts are carabid beetles, the 'wolves' of the insect world, and their huge numbers on the tailings surprised even members of a Laurentian University research team.

"We were quickly overwhelmed with large numbers and kinds of insects caught in our traps, especially at the sites with extensive vegetation," said Laurentian University biologist Dr. Joe Shorthouse who, along with Dr. Giuseppe Bagatto and

technical assistants Michael Malette and Daniel Paquette, conducted an Inco-supported study to examine the bio-diversity and role of insects on tailings at various stages of development.

Since this was a preliminary study designed to determine the usefulness of information on insects in restoration efforts, the researchers decided to concentrate on a group of beetles known as carabids.

A series of pitfall traps, which look like plastic beer cups with a funnel and container with salt and soapy water inside, were sunk into the ground at each tailings sampling location. Pitfall traps are used to sample surface-dwelling insects which accidentally fall into the traps and drown in the container of water. The traps were emptied twice a week and the insects and spiders returned to the laboratory for sorting, counting and curating.

"Insects play a key role in

all terrestrial ecosystems and tailings ecosystems likewise would not develop normally without their presence," said Dr. Shorthouse. "For example, normal ecosystems would contain plant-eating species, as well as those which decompose and recycle organic matter, those that feed on other insects and those that provide food for birds and mammals."

It isn't the number of insects, plants and wildlife that is promising, it's their diversity.

"It is well known that as ecosystems become diverse, they become more stable and sustainable," said Dr. Shorthouse. "Thus, the ultimate goal of all restoration efforts is to establish ecosystems with a complex assemblage of plants and animals. Over 85 species of plants and over 92 species of native and migratory birds have been found on the oldest revegetated Inco tailings," he

Decommissioning & Reclamation, and reclamation coordinator Paul Yearwood were instrumental in laying the groundwork for this project. In consultation with them, the university team decided to concentrate their efforts on studying the abundance and distribution of insects.

Four types of tailings ecosystems were sampled throughout the summer. One was a fresh, recently-dried tailings site before restoration and showing little signs of life. Another had been vegetated with grasses for about two years while the third was vegetated about 15 years ago and is now covered with grasses, herbs, shrubs and trees. The fourth site was a tailings area planted with various species of grass and conifers about 30 years ago.

Ranging from pinhole to thumbnail size and living under vegetation, logs and rocks, about 3,000 black

sorted out from among the approximately 5,000 insects trapped weekly on the tailings.



A carabid beetle, the 'wolf' of the insect world, is more than welcome at the tailings area. The bug is a strong indication that Mother Nature is gaining a strong, diverse foothold.

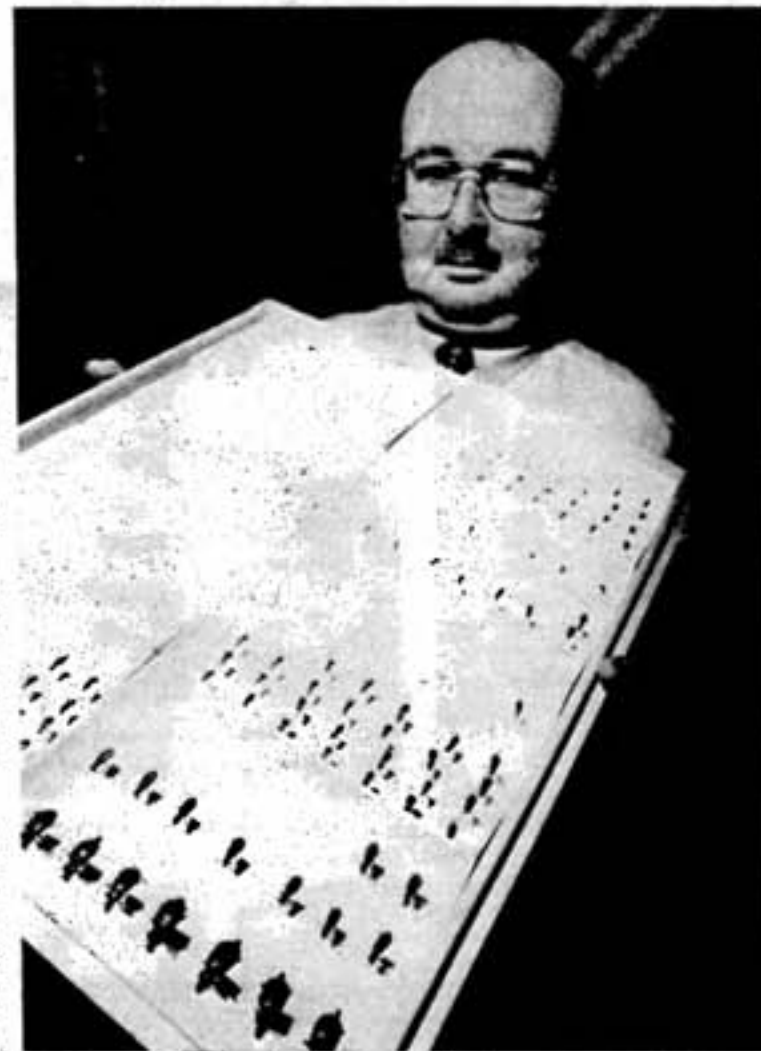
Few species of carabids were found on the fresh tailings. Those found here probably landed accidentally on the inhospitable terrain. However, the numbers of species increased dramatically with the two-year-old grasslands having about 20 species and the 15-year-old mixed site about 35 species.

The large numbers of carabids found on tailings with diverse vegetation and trees suggests that these ecologically important insects are able to sustain themselves.

"Although the results are still being analyzed," said Dr. Shorthouse, "it appears, at least from the point of view of carabid ground beetles, that Inco's tailing ecosystems are developing normally."

Marty Puro figures the study provided some corroborating evidence to what Inco is trying to accomplish. "It gives our agriculture people a confirmation of the success of their efforts. The results make important contributions to the understanding of tailings biology and provide us with an important database for illustrating how our restoration efforts are leading towards sustainable ecosystems," said Marty.

"Such knowledge is necessary as Inco and other mining companies ensure that their tailings are contained and stabilized and will not be a source of contamination in the future."



Professor Shorthouse with a collection of mounted carabid beetles. The smallest in the upper left of the display case are so small that they can barely be seen.

said.

He said that Marty Puro, superintendent of

carabids were collected during the four-month project. Each carabid had to be



The three photos of different areas of Inco's Tailings Area represent some of the different stages in the revegetation process. The university project revealed that there is some insect life in some of the barest areas.

# Bug-eyed sharpshooter picks on thousands of tiny beetles



Daniel Paquette examines pinhead-sized insects with a microscope to ensure he doesn't miss any of the telltale carabid beetles.

Some are little larger than a flea, yet second-year biology student Daniel Paquette can pick out a carabid beetle in a glob of bottled insects faster than you can say "yeeee e-e-e-eccchhhh."

It takes practice, he'll tell you.

Poke through about 5,000 bugs of all kinds for a week to find the carabids and you'll soon develop a kind of radar that helps you pick out the tiny little critters.

"Sometimes," he said, "they're so small that I had to use a microscope to identify them but after a few thousand times, you can even pick these out by eyesight alone."

It was Daniel's job to pick the carabids out of seven jars of insects collected twice a week at the Inco Tailings Area. It was all part of an Inco-supported Laurentian University research project last summer to examine the bio-diversity and role of insects on tailings at various stages of development.

"I was very happy to work on this project. It was a good chance to try to give some-

thing back to Inco," said Daniel. "I was awarded a bilingual Inco scholarship of \$2,500 a year to get me through university."

Daniel points out that the more accurate the count, the more effective the research. "I looked at every insect in the bottles of alcohol where they were stored," he said. "The bottles were brought in twice a week and I spent all week from May through August examining and counting. On Thursday morning, I would do the mounting of the beetles. Believe it or not, I enjoyed the work."

In fact, it stimulated an interest in entomology. He plans to study it and may eventually enter the field for a career.

But Daniel admits that at the end of the day of squinting at tiny bugs, he'd prefer not to see another one until morning. "I had both eyes in the same socket," he said.

"I grew up in Sudbury. I didn't know much about Inco's Tailings Area and the work they are doing here, but I was aware that they were doing a lot of environmental work."

Inco has one of the largest tailings sites of any mining company in Canada with more than 400 million tons of tailings sand stored on 2,225 hectares west of the Copper Cliff Smelter. For every 100 tons of ore that Inco mines, approximately 90 tons are rejected as tailings waste. Tailings are the waste product resulting from the separation of copper and nickel from the ore in the flotation stage of the mill process.

Inco is a world leader in the development of vegetation on tailings, with much of the early efforts pioneered by Inco agriculturists. Vegetation is given a boost by liming and fertilizing the surface and planting a variety of grasses. Once grasses become established and the surface stabilized with organic matter, coniferous trees are planted. In many instances, seeds of other plants and trees become established on the developing ecosystems. This technique has been shown to effectively contain tailings and reduce acid mine drainage and leaching of heavy metals into ground and surface water.

## Good idea + lots of teamwork = big savings

Steamed about costs, the Copper Refinery is tightening the valve of escaping cash.

"This could never have been done without the tremendous cooperation we got from everybody," said instrument man Alf Doherty whose steam flow adjustment idea will save the refinery millions.

"Three boilers at the refinery make steam for heating and processing different products at the refinery," said Alf. "They also keep some of us warm as well."

The boilers, two producing 65,000 pounds of pressure an hour and the other 80,000 pounds of pressure an hour, feed into a main steam line. From there, steam goes through pressure control valves that feed branch lines to customers.

The problem was that opening the manual valve by users in an uncontrolled fashion could cause huge load changes as the demand increased by 20,000 to 30,000 pounds in less than four minutes. Boilers were hard-pressed to keep up with the rapid change and often more expensive steam had to be provided from outside the plant while boilers worked to catch up.

"It was a very inefficient way to supply our customers," said Alf. "Improving it meant simply using the existing equipment in a different and more effective way. The cash outlay was less than

\$2,000."

The adjustment was simple. Instead of manually adjusting the valve, the controls were connected to a computer system where maximum changes of the steam load could be controlled or 'stepped up gradually' at a pace that provides maximum performance from the boilers through the use of a flow controller tied into the pressure control.

In a three-month test of the new system, there was a marked reduction in waste heat steam released to the atmosphere, a lower consumption of natural gas, lower stress on all boilers and the steam system by reducing peak pressure and flows, increases in anode furnace production cycles and a decrease in polling time.

Customer requirements were not only met, but enhanced with the new way of doing things.

Perhaps refinery accountants had the broadest smiles. The three-month test (the same three months over two years) revealed a steam cost plunge of more than 50 per cent to \$444,000 from \$1,071,000. That's a \$627,000 saving in just three months.

Alf said the adjustment required that the system's customers had to get on board and get involved. Meetings were held and ways of fine-tuning the demands on the system were worked out. "They told us what they



Alf Doherty stands behind one of the pressure control valves that regulate the amount of steam going through the pipes.

required and we fine-tuned the system to provide it in the most cost-efficient way.

The refinery produces enough steam for all its needs (a nine-month test showed that for the first time in 20 years, no outside steam was needed), and is today a backup for other steam suppliers.

Alf won \$10,000 through Inco's Suggestion Plan for the idea, but he emphasizes that teamwork was a vital ingredient in the idea's implementation.

"I did the basic design on the basic idea," said Alf, "but I worked with other people like stationary engineer Gates Perreault who provided a lot of information, help and advice."

Alf points to customers at the plant who need to keep their operations going at full tilt while putting up with delays and problems with the steam supply while the glitches were worked out of the new system.

"Utility operators were invaluable by keeping us informed about just what was happening as the system went on line. The tankhouse acid plant was the first customer to go through the growing pains with us," said Alf. "The people there were great. We had some problems but they were understanding and patient."

"In fact, this could never have been done without the teamwork here."

# Creighton Deep miners meet challenges



Bob Lafortune, Brian Fram and Ray Parker were part of the crew that hit ore during development work on Creighton's 7,400 foot level.

**D**evelopment work in advance of production at the \$13.6 million (U.S.) Creighton Deep project is on schedule as Inco miners are meeting the challenges of working on the deepest level of one of the deepest mines in North America.

Creighton Deep involves the installation of a trolley system for the 50-ton electric truck which will tram ore from 7,400-foot and 7,200 levels to the 7,000 level crusher, and

the construction of chutes on 7,400 for loading the truck.

Before the chutes can be built and the trolley installed, development work must be done to allow access to the orebody and the construction of such services as ventilation, an escape raise, pumping and a refuge station. With known ore reserves extending to 8,250 level and exploration drilling underway to determine ore reserves below that level, miners were surprised when

Creighton Deep development miners on 7,400-foot level ran across nickel ore, the deepest nickel mined anywhere in the world.

"That is the first ore from this depth and definitely marks the deepest nickel ever mined," said mine engineer Harvey Parsons. "There are deeper mines but none producing nickel."

Development work will continue and any development ore will be trammed by

diesel truck to the dump site at 7,000 level.

While mining ore 7,400 feet underground is impressive, the plans call for Creighton to go even deeper.

Creighton Deep is scheduled to begin production in October, 1996 and the 7,400 level is expected to be active until the year 2004.

"We plan to have production from the 7530 level before then," said Harvey.

The mine's regular operations have had successes as well. October was a record month for Creighton's miners who hoisted 151,000 tons of material, more than any month in the history of #9 shaft.

## Inco Reserved Scholarship Competition for Children of Canadian Employees and Pensioners 1996 Awards

### APPLICATION FORM

The Inco Reserved Scholarships are awarded primarily on the basis of outstanding academic achievement. Candidates must also demonstrate broad interests and/or leadership qualities through participation in school and community activities. The awards are valued at \$10,000 (\$2,500 annually). Up to five \$1,000 finalist scholarships may also be awarded.

### ELIGIBILITY

Children of full-time Canadian employees, children of expatriate employees from Canadian locations, children of Canadian pensioners and of deceased employees are eligible to apply for these awards.

Candidates must have a strong academic record and be enrolled in a secondary school program of studies required for university admission. Award winners are expected to enter university in 1996. Verification of eligibility may be obtained from Inco.

### SAT TEST DEADLINES:

Candidates must register for and write the Scholastic Aptitude Test administered by universities and schools across Canada. Please note registration deadlines and test dates:

### REGISTRATION DEADLINES

September 29, 1995  
October 27, 1995  
December 21, 1995

### TEST DATES

November 4, 1995  
December 2, 1995  
January 27, 1996

APPLICATION DEADLINE: **APRIL 10, 1996**

Note: Applicants may, if they wish, submit their application in French.



## INCOME *ideas*

by Susan LeMay, CMA

## Income Splitting

Income splitting sounds like something either illegal or dangerous or both. It can be. It can also be an effective way of reducing taxes while encouraging financial independence. It is a financial planning tool that can be used between parents and children, brothers and sisters or husbands and wives. Today we will look at it as a tool for spouses.

### What is it?

Income splitting is a way of equalizing income between spouses. They share the income from some investment. This could be interest or dividend income from stocks and bonds; it could be rental income from a real estate investment; it could be income from a business venture in which they both participate.

### Why would you use it?

Income splitting ensures that the contribution of the two partners in the investment are recognized. This is especially true if you are splitting the income from a business venture in which both have contributed to the success. If you start up a small business and your spouse provides an equal share of the effort in making it a success, then the rewards should be fairly shared. This is true even if you are seen to be the principal person in the business and your spouse provides the support services your business needs for success.

As a general rule, any investment decision made solely because of tax advantages is probably not a good decision. However, reducing taxes is another consideration in income splitting. In Canada, individuals are taxed on a graduated scale so two people who each earn \$25,000 pay less income tax than one person who earns \$50,000. The tax advantage is clear. Revenue Canada is aware of it, and has put rules into place to be sure that this is not used just for reducing taxes.

### When can you use it?

Retirement planning offers a perfect opportunity for income splitting in Registered Retirement Savings Plans (RRSPs). If one spouse has been employed

for a longer period of time, and has worked in a company like Inco where there is a pension plan, while the other spouse has been out of the workforce for some reason such as staying home with young children, then when this couple comes to retirement the bulk of their income will come in the name of the person covered by the pension plan. Any income from investments may also come in that person's name if they do not plan ahead. It is easy. The spouse with the higher earnings puts savings into an RRSP in the name of the lower income spouse. At retirement the spouse receives the income from the investments as if she/he had made the investment.

### Beware of pitfalls

There are several things to be careful of in making decisions on income splitting. The most obvious one is that for tax purposes there must be some clear evidence that both parties contributed to the initial investment. This is especially true in investments in stocks and bonds. A spouse who has never had income from any source is not considered to have contributed to the original investment and is not entitled to claim any of the income for tax purposes. RRSPs are an exception to this.

An investment in real estate or a business venture will often lose money in the early years. When the mortgages are high, a rental property will have a net loss. New businesses can take up to five years or more to make a profit. If one spouse has a higher income and could use the losses to reduce this income for tax purposes and the other has less income it will be tempting to say that the higher income spouse has the investment in those early loss years, and then when there is a profit, suddenly there are two investors. For tax purposes, the second spouse would have to buy a share at the fair market value. This can be a very complicated deal just to satisfy the taxman.

Another pitfall that people do not often think about is that if spouses are partners, then they each have a say in how the investment should be managed. What do you do about differences of opinion? Best to get that out of the way before you start.

# EVH

## FOR YOUR HEALTH

From the Occupational Medicine Dept.

by Janet Martindale

# Coping with Christmas

Look mommy! Christmas! Words of delight from a two-year-old connecting with Christmas for the first time.

'Tis the season once again. Seductive toy ads in September. Glitter and lights by October. All's in full swing in November. Have you got your shopping done? How about those cakes and cookies? Must get that lumber to build grandpa's shelf! By early December, panic strikes.

Sound familiar?

Well, it's time for a deep breath to recapture some of the wonder and delight most of us experienced early in life at this time of year.

There is no doubt in anyone's mind that the holiday season presents many new stresses in addition to those we face daily both at work and home. How we cope with them determines how enjoyable our time spent with family and friends will be.

Fun and practical suggestions to help you relax:

- Bundle up and take a moonlit walk in crunchy snow.
- Dance up a storm at your Christmas party.
- Hug your kids.
- Make lists.
- Set a holiday budget and stick with it.
- The more expensive the gift is, the more stress if it's lost or broken.
- Practice deep breathing.
- Take a warm soothing bath with a flickering candle.
- Play the piano.
- Go sliding with your kids.
- Throw a potluck dinner party instead of doing it all yourself.
- Exercise — it benefits your heart and your peace of mind.
- Get a massage. Pet your dog or your purring cat.
- Listen to your favorite music.
- Drink a tall glass of orange juice on the rocks.
- Shop on off hours and off days to avoid crowds and traffic.
- Carry a book. Waiting in lines is less stressful.
- Eat a balanced diet. Avoid excessive sweets, caffeine and alcohol.
- Laugh lots. Watch a funny movie. Spend time with a funny friend.
- Put a pillow over your mouth and scream.
- Look out the window and 'go on Safari.' Study sauntering cats, busy squirrels, wandering dogs and birds.

### Signs of Stress

- Tight neck and shoulders
- Headaches
- Upset stomach
- Pounding heart
- Fatigue
- Cold or sweaty hands
- Teeth grinding

- Trouble sleeping
- Irritable
- Impatient
- Angry
- Increased smoking
- Increased drinking
- Overeating
- Reckless driving

Stress tenses your body, makes your breathing shallow, raises your blood pressure, makes your heart pound and clouds your judgment. Relaxation reverses the physical effects of stress and makes you feel better, think better and perform better.



LESS WATT

# Energy

## Pulling the (magnetic) plug

Several areas in the Ontario Division are expected to benefit following an Energy Coordinators' meeting that focused on the plugging up of pipelines that reduces production and output, increases stress on the pumping circuits and increases energy consumption.

E.B. Eddy's energy conservation manager talked to the group about his company's success in using 'magic magnets' to keep their lines open.

Many industrial processes, including some at Inco, involve pumping liquids or slurries through pipelines where, over a period of time, the pipe builds up with scale until production rates cannot be maintained because the pipe size has reduced too much or it has become blocked.

E.B. Eddy several years ago employed a Magnetic HydroDynamic (MHD) line cleaner in a line that normally plugged up at least once a month, causing lengthy downtime while expensive cleaning opera-

tions were underway.

With no stoppages for three months, the pipe was examined and found to be clean. An added benefit was that transfer lines to other departments were found to be cleaned up as well. Even now, after more than three years, material is still being cleaned from pipe and scrubber surfaces.

The magnetic line cleaner is a matrix of permanent magnets installed in a stainless pipe, the magnets giving the particles a magnetic charge that prevents them from sticking to the pipe wall. A pleasant surprise discovered by E.B. Eddy was that the device cleaned material that had already stuck to the walls.

The company has installed several more of the devices in other areas with equally impressive results. Cleaning bills alone have been reduced by \$75,000 annually since the devices were installed.

# Yesterdays todays

40 Years Ago

After years of laboratory and pilot plant study, International Nickel announced it had solved the problem of recovering the iron content of pyrrhotite in the form of high-grade iron ore after the nickel content had been removed by an atmospheric pressure ammonia leaching process.

Other nickel recovery processes in commercial operation at the time did not usefully recover the iron content and the Inco process was described as an outstanding advance in extractive metallurgy.

And there was more good news. After the Iron Ore Recovery Plant was fully operational, it would produce a higher grade of iron, in quantity, than any other plant in North America: 65 per cent iron and only two per cent silica, which would make marketing much easier.

In a letter commenting on this latest breakthrough, Dr. John F. Thompson, chairman of the Inco board, said: While Inco is engaged in a never-ending search for new deposits, an important corollary is the constant attention our research staff devotes to getting the most out of the mineral deposits mined by the company."

He went on to describe the 13 elements extracted from the ore in Sudbury with nickel and copper heading the list. "Now, iron ore is soon to be added to these products as a result of the Inco-developed process for the recovery of nickel and iron ore from nickeliferous pyrrhotite," he said.

Other stories that month were: The Governor-General Pays a Visit to the Nickel Belt, Loyal Staffs Keep Activities on the Go at Employee Centres and Creighton and Frood-Stobie No.3 Are New Inco Fire-Fighting Champions.

25 Years Ago

At the annual banquet of the Quarter Century Club at Port Colborne in 1970, employees got a quick peek at the obscure world of international marketing in a speech by John O. Hitchcock, Inco vice-president of international marketing.

He said the vast range of Inco products - pellets, sinters, powders, oxides, sulphates, electrolytic nickel and the alloys - allowed the company to meet the competition from any source.

"These products, plus Inco's marketing ability, place the company in a pre-eminent position and this is where we shall stay," he said.

"Market research is essential," he said, "to know where the market is,

# Inco process an 'outstanding' advance

what end products are required, what forms of nickel will meet the requirements and what can be forecast for the future up to 10 years ahead. Every industry in 12 different categories is constantly under scrutiny for its potential use of nickel."

Inco had offices in every major centre of consumption, he said, with 210 experts in a broad range of fields. And when they found an area where suitable materials were not available they arranged for research in that area.

He gave the example of market analysts realizing there would soon be a need in the developing field of cryogenics - a new material that would stand up to extreme cold in storing and transporting liquified gases. "Today nickel steel is the preferred material for cryogenics, and annual consumption of nickel for this alloy is rising rapidly."

Other stories that month were: \$1.1-Billion Expansion, Better Technology, Challenge Facing Future of Mining and Bringing About the New Inco.

15 Years Ago

It was a relic that had survived almost half a century and demolishing and reconstructing it was one of the toughest jobs maintenance foreman Paul Prudhomme ever had as a supervisor.

The walls on the first and main floor of the Smelter had to be knocked out before work could begin. Scaffolding had to be erected, to give Prudhomme's crew full access to its 110-foot length. And engineers had to go back to the original blueprints of the 1930s before they could attempt to tackle the job.

But after dealing with decades of dust, dirt and decay, the crew took apart the ancient number six ventilator at the Smelter piece by piece and put back in its place a spanking new stainless steel ventilator. "That should be there long after I take my pension," said Prudhomme.

But it wasn't easy. "It was like putting a puzzle together," he said. "Every piece had to be crafted to prescribed measurements."

What particularly pleased him was that although the work took strength and courage to accomplish and took the crew 200 feet above the ground, not a day was lost by his men through injury.

Other stories that month were: Wind Power Comes to Levack, I.O.R.P.'s First Family Day and Vanpooling.

# In Memoriam

NAME	BORN	DIED	YRS SERVED
Ballantyne James	05/21/16	09/12/95	27
Chartier Romeo	12/06/08	09/24/95	30
Christianson James	05/30/38	09/02/95	26
Collison Joseph	08/02/27	09/16/95	29
Dallaire Lionel	07/18/27	09/03/95	36
Dorling Stanley	11/10/22	09/27/95	26
Dowdall Peter	04/28/08	09/29/95	25
Elofson Clifford	08/11/27	09/05/95	29
Garrow George	10/12/12	09/19/95	37
Godin Alfred	10/29/20	09/28/95	19
Kennedy Floyd	04/03/22	09/12/95	31
Leclair Bernard	09/03/29	09/01/95	35
MacDonald Ambrose	10/05/18	09/30/95	32
McCann John	06/14/63	09/01/95	6
Nisic Rade	12/15/11	09/24/95	19
Parri Carlo	06/15/28	09/20/95	41
Pawson Frederick	05/26/11	09/23/95	27
Prus Michaljo	01/27/24	09/05/95	31
Roberts Raymond	11/08/35	09/23/95	30
Ruston Gordon	11/03/12	09/23/95	31
Silver George	12/16/08	09/27/95	37
Waller Frederick	06/16/26	09/05/95	29
Wilson Walter	05/14/11	09/03/95	43
Woznow John	08/13/11	09/03/95	36
Wabegijig Dennis	07/19/29	09/10/95	26
Young Alvin	09/20/29	09/05/95	35



On Page 11 of the October Triangle, this photograph of Safety, Health and Environment manager Larry Banbury making his rounds at a Copper Cliff Club meeting was incorrectly linked to a Leader 2001 program graduation ceremony. In fact, the event in question was a Safety Conference.

# LET'S TALK SAFETY

with Ron Rafuse

Safety statistics are used to measure and compare the number of injuries and accidents that happen. The goal at Inco is to avoid all injuries.

Last month's column talked about the safety principles and explained Principle No.1, All injuries can be prevented. I'll talk about the second principle this month.

## Employee Involvement is Essential

No matter what we do at Inco we are employees. We all have exposure to injury. Each person has the most control over his or her actions and the conditions of the workplace. As employees, we best understand our own physical limitations. With good communications and involvement, a proactive environment can be created on and off the job.

Employee involvement is the reason behind the workshops now taking place at each plant and mine with all employees. The Making the Workplace Safe workshops that discuss the actions we as employees can take is a time when all levels at the company can discuss issues and commit to making the workplace safe.

Safety at Inco can only be achieved by the total involvement of all employees working together to put safety in the workplace first in our approach to work.

Each of us must make safety a priority in all tasks both at home and at work. Each time a job is started we must ask ourselves where is the greatest danger for injury and how can I do things differently to avoid injuring myself or someone else.

If we all do our part and get the involvement of all employees, each and every one, it's clear that injuries can be eliminated.

## Off the job safety

Winter will soon be upon us with the first sudden snowstorm for which we are never ready. On that first snowy morning, it is unusually hectic both on and off the roads. Just as we get properly prepared, we should be ready for the first snowfall. To assist you in preparing, here is a basic list that can be used to help you and your family. As most of the accidents or incidents that occur with the first snowfall involve major vehicle accidents or slips and falls, we will deal with the personal and vehicle check list.

- Have a snow brush and window scraper in the vehicle.
- Check your heater and antifreeze.
- Replace the wiper blades. Most have damage from the summer.

# Key to safety is employee support

- Check the exhaust system for leaks.
- Check the tire treads. Remember, that's all there is between you and the road.

- Have your brakes inspected.
- Locate and have your boots and winter footwear available.
- Have winter gloves and mitts ready.
- Locate your snowshovel and check the snowblower.

Check tread wear on your winter boots as well as your vehicle's tires. Slips and falls are a major cause of accidents on the job as a result of the first snowfall.

## Safety Tip: Boosting a battery

Boosting a battery incorrectly can cause it to explode, spraying acid.

First, clean the clamps and terminals, then tighten the clamps. Avoid touching the terminal posts.

If cleaning and tightening doesn't work and jumper cables are needed, make sure the vehicles are not touching and turn off the ignition. Make sure the batteries are the same voltage and set the parking brake and shift both vehicles into neutral or park.

1. Attach one red clamp end of the jumper cable to the booster battery's positive terminal and the other end to the positive terminal of the dead battery.

2. Attach one black clamp end of the jumper cable to the negative terminal of the booster battery and the other end to the engine block of the vehicle with the discharged (dead) battery. Make the connection at least a foot away from the battery to keep sparks away from the battery gases.

3. Start the engine of the vehicle with the booster battery, then start the other vehicle.

4. Remove clamps in exact reverse order.

Note: Never boost a frozen battery. It might explode. Check the operator's manual before boosting vehicles with an onboard computer. Shield your eyes and don't lean over the battery. Don't let metal or jewelry such as a watch make contact.

Next month we will look at Principle No. 3; Management is responsible for preventing injuries and look at how we should get ready for the Christmas season.

Ron Rafuse is Superintendent of Safety for the Ontario Division

# Port Colborne



## Refinery helps community celebrate

When the city of Port Colborne held its 125th birthday party this year, Inco was a welcome celebrant as an industry that has played an important part in the strength of this southern Ontario community.

It was back in the fall of 1918 when the Port Colborne Refinery began production and, by 1942, was producing 250 million pounds of electro-nickel. It was the company's major source for the product until the early 1960s.

Although the electro-nickel refinery was shut down in 1984, Inco's PCR continues with Cobalt and Precious Metals Refining as well as nickel products packaging.

Several community organizations and businesses helped celebrate the community's anniversary. Inco's contribution to the celebration was as enthusiastic as any.

The Inco display, covering several generations of history, consisted of a folding chronological photo and product exhibition featuring a storyline of pictures, drawings and charts from Inco's first days in Port Colborne to its current operations.

"Nearly everyone who stopped by to see it talked about how they have had some family connection with Inco over the years," says Gary Hoffman, superintendent of Operations and Maintenance. "One woman found her father in one picture and her husband found his father in another."

Retired Superintendent of Operations Bill Kantymir, who did a great deal of work compiling many of the photographs, was pleased to see so many people showing an interest in the history of the Port Colborne Refinery.

"People stayed and looked at it for a long time," says Bill. "A lot of them commented on all the changes between 1922 and now."

Almost 500 people stopped to look at the display which also featured a number of product samples including refined cobalt and S and R nickel rounds packaged in 10 kilogram bags at Port Colborne. Some examples of nickel products produced at PCR in the past, such as a 9 X 9 electro-nickel square, were also on display.

"Some people were disappointed that we didn't bring any samples from the Precious Metals Refinery," says Gary with a smile.

Several of the historic pictures used in the display, explains Bill, were taken from the plant's archives. There was even a large photo and coin display mounted on an old printer's block which had been compiled for the 75th anniversary celebrations at the PCR two years ago. The modern pictures, however, were collected from

different offices throughout the plant to round out the storyboards. There was even a large floor mat in the centre of the display with the words 'Inco Welcomes You' in large print.

Other display highlights included copies of original newspaper clippings including one from the August 1918 Globe and Mail on the opening of the PCR. The item bore the headline 'Nickel refining in Canada marks a new era in history.'

In addition, the bright blue and yellow color scheme of the display and the large title "Stronger For Our Experience" stood out among the other displays.

"I like the phrase, Stronger for our Experience, because that describes PCR perfectly," said Gary. "We have many years of varied experience and a strong future for the current employees and operations."

Both Bill and Gary said they enjoyed talking with people and answering a range of questions. Many of the questions, they added, were either about the past or about the future of the Port Colborne Refinery.

Cobalt refining began in Port Colborne initially as a by-product of nickel refining and eventually resulted in the construction of a 3,000,000 pound per year cobalt leach/electrowinning refinery. The high quality cobalt rounds are used for the production of "superalloy" grade metals for jet engines and the space industry as well as many other applications. Yearly production has a market value in excess of \$80 million.

Precious metals refining also began as an important adjunct to nickel refining starting as early as the 1940s. In Port Colborne, piloting began in 1977 in the research stations and continued until the mid 1980s. At that point, No.3 Research Station was retrofitted to become the Precious Metal Refinery. Today the PMR refines a range of products including gold, silver and platinum for a total market value of approximately \$140 million a year.

Nickel products from plants in Thompson and Copper Cliff are packaged by the Plant Services Department on two high-tech, automated lines at Port Colborne. Approximately 40 million pounds of nickel, worth more than \$150 million is packaged at the plant each year.

"Port Colborne has changed over the years," says Gary. "And the PCR has changed too. We've always managed to keep producing. The Port Colborne Refinery has survived by remodeling itself and adapting to change."

# Jack's still 'wily' mining man as he scouts out Victor



In 1960, as the new engineer for the old Victor Mine and the nearby MacLennan Mine, Jack Wylie, left, came out in winter to do the surveying. "There was nothing between me and the North Pole but the wind," Jack recalls as he visits the new Victor Advanced Exploration Site with his brother, Don. They are active Inco pensioners today.

The last time Jack Wylie seriously worked in Victor country was in the winter of 1960 when the only thing between him and the North Pole was the bitter wind.

He was an Inco mining engineer who had done a fair chunk of the work at Creighton, Garson, Coleman, Kirkwood and MacLennan. Back then, Inco was just beginning to develop the Victor property it had acquired 40 years earlier from the defunct British American Nickel Corporation.

History shows that the first ore out of Victor was shipped on April 13, 1960 and that Victor was only in production that one year. Jack, working out of Garson engineering, was the engineer on the project.

"I had a '56 Chevy those days that I banged the bottom off coming into Victor. It was a pretty rough road," he was saying recently on a promontory overlooking the Victor Advanced Exploration Project. Behind him, on the far side of Blue Lake, is the newly-revegetated, regreened Victor Mine site. "It was a small shaft. I guess it would be, 10' by 8', at two levels, 175 feet and 350 feet deep. We mined a big sinking stope. It was good stuff, good grade, 1.40 copper, 2.40 nickel."

Jack, for one, isn't surprised by the high hopes Inco holds for Victor, in the midst of a \$72 million exploration program to define how rich the mineral reserves are. Some within the company even consider Victor Deep as significant a find as Voisey's Bay in Labrador, albeit more difficult to get at.

"When I was up here before, a university engineer from McGill said there was probably ore below but he said it was cut off by a fault. So I wasn't surprised they've got good ore here," he said, as a giant crane deftly raised the steel structures sky high for the sinking headframe. "But I was quite surprised by the size of the shaft and by the amount of work going on out here. It's going to be a real pretty place."

At 71, he's been away from the mining game since 1982. The changes in the past decade amaze him still.

"Mechanized mining, that's the big change," says Jack, who advises the Big Nickel Mine folk for the price of a cup of coffee on what they need to do to keep the tourist attraction in shape. "They can control everything from the surface. It's all computerized now. It's a good thing. The old ways were pretty dangerous. Here, at Victor they're going to be so deep they'll have to use the very best. It's kind of nice to watch a television screen and see a scooptram underground."

Fact is, mining is so impressive today he'd choose it all over again for a career.

"Miss mining? Not at my age. I had enough. But I like to know what's going on so I keep in touch with the fellows," he said. "When I added up all my years, Inco and the air force, I had over 40. That's enough. Now, with the modern equipment and technology today, if I were starting over, I'd be quite interested in going back to mining again."

## But you didn't know?

That Inco Limited is by far the largest single employer of Cambrian College graduates working in the mining and mineral processing industry in Canada. More than 1,400 Cambrian grads now enjoy careers with more than 50 major employers in our industry. But did you know that more than 300 of them have come to Inco over the years? Or that at least 40 Inco employees served stints on program advisory committees at Cambrian? ... Speaking of jobs, it's been a banner year of sorts for Inco's human resources folks. Relying strictly on word-of-mouth advertising, they've received close to 8,000 applications for employment so far this year. That certainly says something about Inco as a quality employer ... Simpson's Shaft, Bruce Mines is becoming a solid tourist attraction. And the steam-driven water pump and a steam-driven mine hoist at our old Sultana Mine is a hit with the tourists. Randy Sweetman of the area's Copper Town Committee reports that 1,620 tourists signed the guest register at the reconstruction of Canada's first commercial copper mining town. "Many others did not sign the register," Randy adds ... The old Copper Cliff #2 Mine is now history. A community relations' success story in that part of Little Italy, the filling in of the shaft was completed late last month. More than 400,000 tons of waste rock were dumped into the abandoned mine ... Inco's red pine seedlings show up in the most appropriate places. At the recent Niagara Peninsula Conservation Foundation gala art auction and dinner, 350 of the seedlings were at the tables as guest favors. According to dinner committee volunteer Wendy Luce Meyer, "Thanks in no small part to your contribution, our dinner tables looked spectacularly 'green', we have

I heard it down at ...

# The Dry



by Jerry Rogers

achieved our dual goal of funding the wetland marsh boardwalk at the Chippawa Creek Conservation Area and installing an interpretive guide." Kudos to Paul Yearwood, Mike Peters and gang ... Lest we forget, Frank Lengemann, a tailings system operator, was an able, last-minute guide for the visiting Czech film crew shooting our tailings area this summer for a Czech TV series ... Don't forget the seventh annual Ontario Mining Week is scheduled for the week of Monday, April 29 next year. Look for some innovative plans to take a little piece of Sudbury to Trawna.

## Whatever happened to ... ?

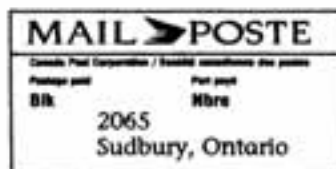
Like father, like son. When you're looking around for role models, you could not do any better than Ray St. Pierre and his son, Bill. They have certainly left a deep impression as people who care and, more importantly, do something about it. Ray, who celebrated his 80th birthday this year, has just marked his 29th year as a counsellor with Telecare in Sudbury, itself marking its 30th anniversary Sept. 30. Ray served 37 years as a maintenance specialist with Inco when he retired in 1976. "Retirement is the best thing. You can do what you want to do. It's freedom. It's great," he says, adding that with sons and daughters it's never a chore finding maintenance work to do.

Son Bill spent a dozen years with Inco in the late '50s and early '60s before going on to a teaching career at Lockerby. Today, he's the head of Circle K Ranch, the benevolent youth operation of Crossroad Christian Communications. As its founding director, he's seen more than 150,000 troubled kids pass through Circle K in his 19 years. "I've come around to such a better understanding of kids. It's made me have more compassion for kids than I had as a school teacher," he says, still marvelling at how a little love and compassion can help a teen on the road to success.

For Don Wylie, retirement arrived at the end of 1991 after 32.5 years as a foreman, sulphur products. "It's great not having to get up at 5 o'clock and head for work at 40° below," he shudders. Don, who's 59, still misses the guys and the crew. "I was a miner, then I was at the Smelter. I enjoyed my years. There were good days and bad days. But there were more good days than bad," he says. Camping, travelling and spending time at his brother's camp fill his days now.

And there was one. For almost a decade, Harry Franssi and Gerald Stonley were fixtures at the Copper Cliff main entrance in the mornings leading up to Remembrance Day. With Gerald's passing a couple years back, Harry now handles the poppy distribution alone, a tall, dignified presence in his tan overcoat and Royal Canadian Legion tam. Now 75 and in his 14th year of retirement after more than 31 years in the Smelter sample house, Harry was back at his vigil this fall. "I kind of do it to honor the people who paid the supreme sacrifice," he says. Harry, who served in the Canadian Army in France and Germany in the Second World War, keeps active at golf, curling and spending long weekends at his Penage Lake camp. "If you don't move, you get stiff," he adds.

If you have a story idea, interesting fact or figure about Inco or just a plain old anecdote you'd like to share, I'd be very interested in hearing from you at 682-5204.



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