For Jon Gill and family, travelling from the high seas to the depths of a nickel mine was a leap of faith. See story, picture on page 15.

INCO
Triangle
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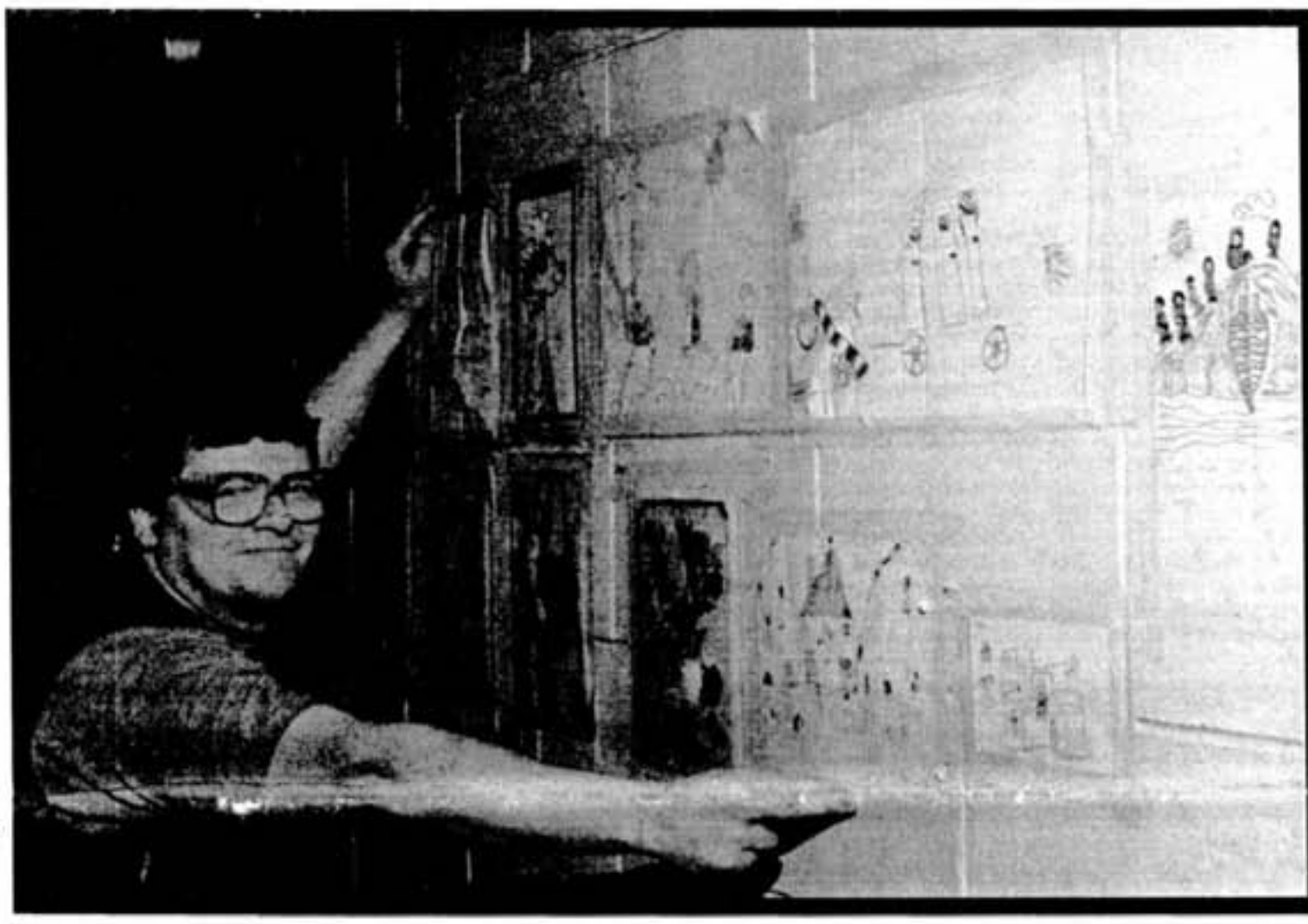


Inspiring Pin Ups

When Divisional Shops machinist Roger Chevrier decided to brighten up the workplace a bit, he decided to use the artwork of his seven-year-old daughter Christina. "I like this better than the more traditional pin-ups," he said. "When work gets a little hectic around here I look at the artwork and smile." He's displayed Christina's art for several years now, well before Inco's official sexual harassment policy.

Inco support 'invaluable' for Sudbury student

Anna Stachulak is a Valley girl.

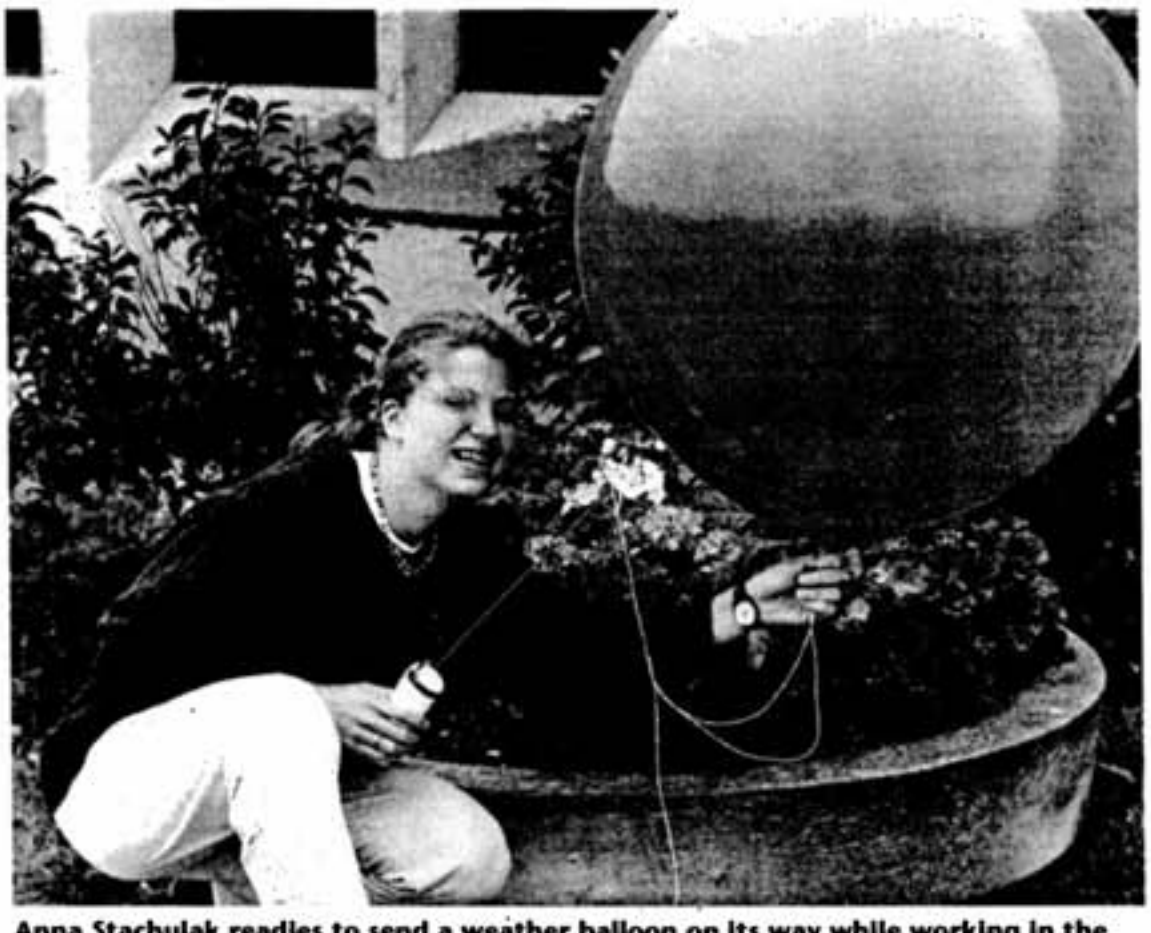
And Inco played a role in her becoming one.

A Grade 13 student at College Notre Dame in Sudbury, Anna was one of 400 students from across the country selected to attend the 1992 Shad Valley summer program at one of eight Canadian universities last summer.

Inco sponsored her stay.

"Shad Valley is a Canadian summer program in technology and entrepreneurship for outstanding senior high school students," said Pat Gallagher, an Inco Industrial Relations representative. "It is a non-profit educational institution dedicated to building bridges between industry and education. It is financed entirely by tuition fees and sponsoring organizations such as Inco.

"The program is operated by the Canadian Centre for Creative Technology and participants are selected on the basis of intellect, creativity, interpersonal skills, initiative and drive," he said. "Anna's sponsorship was Inco's first involvement in the program."



Anna Stachulak readies to send a weather balloon on its way while working in the Meteorological office at Environmental Control.

Anna, the daughter of Joe Stachulak of Copper Cliff Mines Engineering, spent four weeks with 55 other students at the University of Calgary, and completed a five-week paid work placement at Inco.

"Shad Valley was, is and always will be an experience that will influence the rest of my life," said Anna, who aspires to a career in psychiatry. "I was given time to establish, judge and pursue my goals. With many new friends I spent endless nights discussing the meaning, philosophies and religions of life. We each expressed our views, shared our dreams and realized that all of us want to make a difference in this world."

Anna likened the Shad Valley program — which blended seminars and lectures with field trips and recreation — to a "base camp", preparing students to climb "the mountain of life."

Inco's support, she said,

continued on page 2

Sponsorship is partnership of industry and education

continued from page 1

was invaluable.

During her five-week work placement Anna spent time in Occupational Medicine, Environmental Control and Central Process Technology.

"Anyone who has the chance to be sponsored by a company like Inco should realize it's a fantastic opportunity," she said. "Everyone I've encountered at Inco has treated me like gold.

"My work term allowed me to see how deeply the company is involved in ensuring the health and safety of its employees and protecting and rehabilitating the environment. It was a real eye-opener for me."

During her stay in Occupational Medicine, Anna sampled all aspects of the department's functions and participated in hearing tests, cardiovascular examinations and "early intervention" lectures.

Her time at Environmental Control, where she was exposed to environmental issues facing the company daily, was spent outdoors for the most part.

She visited Whistle Mine, the Copper Cliff Tailings area, the Smelter, the Waste Water Treatment Plant and the Meteorological Office. In the each instance, the operations and the legislation governing them were explained to her in detail.

The last portion of Anna's work term was spent at the Central Process Technology lab where she was introduced to the equipment and procedures used in environmental, bio-chemical and mineral analytical testing.

"I know I will benefit a lot from my work experience at Inco," she said. "Inco offered me new insights, thought-provoking situations, a wonderful working atmosphere and a chance to apply some of the things I was exposed to at Shad Valley."

Following a review, Inco's involvement in the Shad Valley program was deemed a positive one for all three parties — Anna, Inco and the program. As a result, the company is committed to continuing the program in 1993, said Pat Gallagher.

"Inco's involvement is not viewed as a charitable donation," he said, "but rather the creation of a partnership between industry and education. Denoting our time and resources to promising young students is an investment in the future of us all."

This type of partnership is in line with several other initiatives the company is involved with in the local community, said Pat. These include cooperative education programs and the upcoming Careers 2000 exposition scheduled for Sudbury in May.

"The work placement portion of the Shad Valley program was found to be particularly effective," he said. "It gives students a broader and more knowledgeable picture of industry and allows them to reassess their career goals. It also gives employers the opportunity to act as mentor for outstanding young students and support an important education program that is industry-driven."

Anna agrees.

"I think it is essential that young people have the opportunity to work for a company such as Inco," she said. "We are the next generation of Canada and Inco Limited has certainly contributed to the making of my future."

Will we survive tough times? What can be done?

Etienne Rainville, electrician, Little Stobie: "The company is going through some drastic measures to try and save jobs. They need more feedback from the workforce. If both would work together, I think this thing can be turned around. People's attitudes have to change."

Gilles Brosseau, welder, Little Stobie: "As employees, we can be conscientious about everyday cost savings—things like turning out the lights. But the real solutions will have to come from upper management. We (employees) do what we are told."

Fernand Dumoulin, miner, Frood Mine: "I look at it this way: With the Russian nickel on the market now, there isn't much the company can do. Employees can contribute by reducing waste and working more efficiently. I think a lot of people are already starting to do that."

Jim Zinger, mine foreman, Stobie: "I'm confident that we'll survive. We've gone through hard times before. I think we're in better shape now than we were then. Our technology means that we can work smarter. Employees can help by reducing waste."

John Hanlon, training instructor, North Mine: "I think we'll survive as long as we keep costs down. Employees should sit down with management and come up with ideas. Employees should be more involved in finding some answers. But I think we'll turn it around."

Bob Gareau, electrician, North Mine: "We've been through this before. We'll survive. I guess we just have to be even more leaner and meaner than in the past. We've already learned how to produce nickel cheaper and it's possible to produce it even cheaper yet using high technology."

Clyde Green, bus driver, Safety Department: "Give us time and we'll be back on our feet. We've always managed to survive before and I think we will this time as well. The economy is bad all over. My feeling is that there will be a long shutdown, but no layoffs."

MAKING Change

Levack tightens up for big savings

It looked kind of pretty, like a sparkler on the fourth of July, but for Levack track maintenance crews it was a pain in the neck.

A pain in the back, to be more precise.

"No matter how often or how hard you tighten the bolts on the trolley track, before long it would work itself loose again and you'd have to go back at it," said Levack trackman Mike Bolduc. "When the current started arcing across the loose joints in the track you knew it was time once again to re-tighten all the bolts."

In fact, the job of keeping sections of Levack underground track operating was not only hard, dirty, monotonous and time-consuming manual work, but it was costly and continually threatened to shut things down.

There are 200 joints on each one of Levack's 30 kilometres of track, each joint demanding four bolts, nuts, washers and a strong arm at the wrench. That's a total of 24,000 bolts to be kept tight . . . by hand.

The track acts as the return circuit for the electrically-operated trolley system fed 250 volts through an overhead feeder line. Two CAD welds on both sides of each joint tacked a copper cable in place. The cable bridged the joint to ensure the flow of electricity between sections of track. As the joints loosened, the cords had a habit of working themselves loose and forcing the electricity to arc across the loosening joints in the track.

The fireworks may have looked pretty, but it was expensive in wasted electricity. The 24,000 welds in the system, as well as the bolts, had to be continually checked and repaired as well.

"You could do about 10 joints a shift," said Mike. "It was hard work because of the welding fumes from the bonding process. Nobody could work downwind of you and often the welds wouldn't hold and you had to do it again. We did a lot of repeat work."

The job of tightening the bolts, checking and repairing welds — a daily procedure in some heavy traffic areas — demanded four crews to work on the track on a full-time basis.

Despite the constant monitoring and repair program, the inevitable track failure occurred regularly. Sections of rail would break after being loosened from the pounding in some areas of as many as 180 fully-loaded tram cars per day, each weighing between 18 to 20 tons.

Entire sections of rail had to be replaced, sometimes at the rate of one or two rails per shift. The two-hour job regularly brought production to a standstill as five man crews worked hectically to repair the track and return the mine to full operation.

"You were always behind and you just couldn't catch up," said track boss Eddie Leroux. "It was frustrating. And it was hard work with the wrench."

Track crew Eddie Leroux, Leo Carriere, Mike Bolduc and foreman Marcel St. Amour demonstrate the tools and equipment used in a more effective track bonding procedure developed at Levack.

All too often the nagging problem turned into significant production downtime when fully-loaded trolleys derailed, ripping up hundreds of feet of track bed, smashing both ties and track. "It takes a crew of five about a shift to repair 66 feet of track," said muck circuit foreman Marcel St. Amour, "so you can see that we're talking about major downtime."

As early as 1988, Levack began looking at ways to eliminate — or alleviate — the problem.

"It was well before the formal company-wide emphasis on continuous improvement," said Marcel. "But looking at it now, we tackled the problem in much the same way . . . in cooperative, teamwork fashion. We got everybody involved, from the guys on the tracks to supervisors. We even brought Huck International on board." Huck supplies track bonding systems.

There was no difficulty identifying the problem. Like a hot dog in a bun, the abutting ends of the track were clamped together by two fishplates that straddled both sides of the joint. Four bolts, two on each side of the joint, were inserted through matching holes in the track and fishplates. After nuts and washers were threaded on the assembly, the fishplates were tightened together with the track in between. No matter how hard the bolts were tightened, they eventually worked themselves loose, depending on the amount of traffic on the track.

"Our first idea was to eliminate the joints altogether by using continuous rail. But welding the track ends together proved too expensive," said Marcel.

After a rethink, experimenters recognized that it wasn't the fishplate bonding method that was at fault, only the bolts that held the fishplates in place.

The answer to the problem was simplicity itself. Instead of bolts, nut and washers, use rivets. They could be installed by one person with a hand-held hydraulic tool and the connection was as permanent as a weld. The tool, resembling a hand-held drill, required more pounds per square inch than was available on the existing track-mounted maintenance service vehicle, so a hydraulic intensifier was developed that boosted output to what was needed to apply the rivets.

The solution brought benefits unforeseen by even the most optimistic. Installation takes minutes instead of hours and virtually eliminates maintenance, downtime and subsequent production losses. "In installation costs alone, we're saving over $15,000 per kilometre of track in material and manpower," said Marcel. "The savings in maintenance, downtime and production gains is almost impossible to calculate. To say that the savings are substantial would be an understatement. We're getting a return on our investment that's paying for itself over and over again."

	Fish Bolt	Huck Bonding
Joints per day	9 (crews of three)	50 (crews of two)
Days to complete one kilometre	66.6 person days	8 person days
Material cost per joint	$47.72 ea.	$36.32 ea.
Labor cost per km.	$14,918	$1,792
Total Material and Labor per km.	$24,462	$9,056

Installation savings ($24,462 - $8,056) = $15,406.

Initially adopted to eliminate joint loosening, the new method worked so well that it created the answer to the arcing problem as well.

Installing the current-carrying cable that spanned the joint demanded metal grinding and welding. Once installed, it needed constant monitoring and repair. Now, with the track joints solid as a rock, conducting electricity through the joint became simply a matter of sandwiching a copper strip on each side of the joint between each fishplate and the track. What started as two separate time-consuming installations now became one simple procedure.

"We wanted to make sure that what we were doing was working," said Marcel, "so we examined the system recently and discovered it was working much better that we expected."

The copper plates were carrying the current over three times more effectively than the cable and there was virtually no maintenance.

Levack track is gradually being replaced using the new method as failure occurs. At least two kilometres of the most critical section of track, the section that transports McCreedy West ore to Levack for hoisting to surface, has already been replaced.

"We used to take three tram shifts to get 180 cars per day from McCreedy to Levack," said Marcel. "With our track improvements, there are many days that one crew will tram 150 cars in just one eight hour shift. That's a massive improvement."

Because the new trackwork is less labor intensive, it takes only two men to do the work instead of three. "It's freed up the equivalent of one of the crews required for tramming for other work at the mine."

The savings are a boon for trammers, who must now spend only two days on midnight shift instead of five.

Since the development at Levack, five other Inco mines have adopted the system and Inco's surface rail system is examining the method for its surface track. At least two other mining companies have also adopted the method in their mines.

Even the Toronto Transit Commission showed an interest, requesting information from Levack about the results of trials held here.

Huck International, an active partner in the development of the new system, is promoting it worldwide and using a video made at Levack in its promotional material.

For Levack miners the improvement was a welcome development. "We were all interested in coming up with something better," said Eddie Leroux. "The old way was a real pain in the neck."

Levack miners worked together to make their rail system run on time by switching from bolts to rivets (Huck bonding) as a way of fastening track ends together. The improvements radically reduced cost, track failures, maintenance and manual labor, while at the same time increasing efficiency and productivity.

The above chart shows only the substantial savings realized on initial installation and does not show the enormous savings in maintenance, monitoring, lost time and productivity that the changes have meant to the operation of Levack trolleys.

MAKING Change

Savings by the bucket at this repair shop

Heavy Equipment Repair Shop teamwork is the major ingredient in a project that promises to save over $500,000 annually, quicken repair schedules, standardize repairs and enhance equipment quality and longevity.

But it'll take the cooperation of Inco's Sudbury mines to make the promise a reality.

The mines are being asked to adjust their procedure for submitting scooptram buckets to the shops so that the new system of repairs can be implemented.

Key to the success of the project is that buckets be sent to the shop by the mines at a stage of wear that requires only minor repairs. Buckets that are heavily damaged and worn cost about $12,000 to repair. Minor repairs cost about $6,000. The shop handles approximately 150 buckets per year, and 67 per cent of those require major repairs. If the figure is cut to 20 per cent, the company would save $420,000 annually.

Informing the mines about the potential savings is a major part of the shop's initiative, and team members have gone to each mine to make their case. A video has been produced to outline information on bucket requirements. The video demonstrates the damages and costs which occur when specifications are not followed.

One modification already applied to all repaired buckets that leave the shop is a "wear hole." Located on the corner near the lip, the hole acts as an indicator to scooptram operators. Once the bucket wear approaches the hole, the bucket is ready for repair.

The team is also encouraging the mines to order plate rather than cast replacement "lips" on their bucket repairs. Although the cast lips are twice as expensive as the heavy plate lips, studies have shown that both are roughly equal in performance. Replacing the lip, the front bottom end of the bucket that digs into the muck, represents about 90 per cent of the shop's bucket repair work. Simply phasing out the more expensive cast replacement lips represents potential savings of $203,800 annually.

Plateworker Norm Levesque acknowledges that the backlog of buckets waiting to be repaired at the repair shop, coupled with the need for replacement buckets at the mines, creates a Catch-22 situation that will take cooperation between the shop and the mines to overcome.

"The mines require more replacement buckets from us in order to give us their buckets at the minor repair stage. Yet with all the major repairs required, we have been fighting a losing battle to provide replacement buckets. If we can't supply them fast enough, the mines have to use them longer which creates major repairs. It's a vicious circle."

But once on schedule, the negative situation will turn positive, said Norm. "If more minor repairs are made, the turn around of buckets will be much greater and the mines will have enough buckets that they won't have to wear their existing buckets down to the major repair stage.

"In the past we've been in a situation where we have been doing one minor repair for every five major repairs. Eventually, we want to reverse that statistic," he said.

The situation has put bucket repairs in a constant catch-up mode, and although the new standardized bucket repair procedure has begun to make a dent in the backlog, there are still about 50 buckets in the yard waiting to be repaired.

"It'll take some time before the full impact of the changes can be felt.," said Norm. "Already we are catching up on our backlog and if we get the mines on board we'll eventually get on a schedule that will save us a lot of money."

Norm, along with team members plateworker Pat Burns, welder Steve Deighton and supervisor Gord McCandless, began a year ago to rethink the way bucket repairs had been handled at the shop. The project was the continuation of an effort begun earlier by shop personnel to standardize the procedure and increase bucket repair productivity and provide a safe sequential order of operations.

Getting the buckets early is only the first stage of the cost-saving scheme, one that is largely out of the shop's control. The second stage is the standardization of repairs at the shop.

Previously, each individual repair was unique. The area to be repaired was cut out and a replacement piece fabricated by shop crews. Under the new standardized repair scheme, a stockpile of standard precut replacement pieces fabricated at the plate shop is used for most repairs.

Not only does the standardization vastly increase the production of minor repairs at the shop, but scheduling is enhanced because time estimates on each job can be accurately forecast.

"The faster turn-around of minor repairs, hopefully coupled with fewer major repairs coming in from the mines, is how we plan to get caught up and then keep up with the demand," said Norm.

He's confident that cooperation will turn it around. "The information has already gone to the mines and most are on board already. It looks like we're already getting more minor repairs back than before."

Norm Levesque and shop supervisor Gord McCandless examine a bucket lip ready for installation.

Welder Mike Kotyluk takes the measurement of a repaired bucket. Note the welded lines that give the bucket a jigsaw puzzle appearance. All the pieces have been standardized to make repairs more efficient.

Welder Jari Paavola works on a repair inside a bucket at the Heavy Equipment Repair Shop.

Welder Ken Hill measures what portion of the bucket has to be removed and replaced.

MAKING Change

Creighton's savings a slimy affair

A Creighton team has flushed out the answer to one of the slimiest situations confronted by the Division's quality improvement initiative, solving a problem that cost the company almost $500,000 in 1991 alone.

"We have two sumps (holding tanks) at 7,000 level to store the run-off water from sandfill pours and regular mining operations," said scooptram operator Dan Stefanczyk. "When the sumps got too full, the only way to get rid of it was to pump it to the surface through a series of clear water pumps."

The problem is that "run-off water" is hardly adequate to describe the material in the sumps. "Mud slime" would be more accurate, and the thick, goopy material had to be agitated before any pumping could take place.

Even with the agitation, the material would build up, clog and eventually burn up the clear water pumps located between 7,000 level and the surface.

The slime was a major contributor to Creighton's 21 pump failures in 1991. The pump repair bill for the year was $420,000 and that didn't include the downtime, cost of crews on the eight-hour job of removing and installing the huge pumps and the transportation of the pumps to and from the surface.

The pumps are repaired at Central Shops.

A team consisting of Dan, construction leader Jack Ricard, foreman Jack Davidson and general foreman Danny Lavigne examined the problem.

"As well as being expensive, the pump problem made for a poor environment. Pump failure would create flooding which created an environmental hazard as well," said Dan. "We were eager to get rid of the problem."

With little capital investment and a lot of ingenuity, the team came up with an answer. Instead of operating the two sumps in unison, they worked out a procedure that alternated the sumps. While one was being cleaned out, the other had its slime removed with a scooptram.

To allow access to the sumps by the scoooptram, a cement retaining wall was torn down and replaced with removable timber bulkheads. When each of the two sumps fills up, the collection of mud slime is shifted to the other sump. The bulkheads on the filled sump are then removed and a scooptram removes the slime and sends it to the surface with the mine's waste rock.

Jack Davidson, Danny Stefanczyk and Dan Lavigne examine a diagram of Creighton's clear water pumps system.

The improvement has been dramatic. Breakdowns in the series of nine clear water pumps used to bring the water to the surface have been cut by almost two-thirds. In 1991 there were five breakdowns of the pumps on 7,000 level alone. Since the new system was installed early in 1992, there have been no breakdowns on the level.

"Man hours are roughly the same," said Danny. "The two people that used to agitate the slime and watch the pumps to ensure there were no breakdowns have been replaced by two people mucking out the sumps. There's no manpower savings, only a big reduction in repair bills.

"We use a scooptram between shifts, when it is not in use. That way, there's no production loss."

MAKING Change

Going with the ore flow

Ore flow — the movement of muck from the mines to the mill. It's easy if you say it fast but in reality it is a complicated and very important step in the processing of ore into metal.

Earlier this year, the Ontario Division began to examine closely the intricacies of the system to determine what areas of opportunity for improvement could be identified.

Using the Continuous Improvement process, in-house teams were set up at the Clarabelle Mill, within Transportation and at most of the mines. Their objectives have been to facilitate reduced variations in the ore flow rates and grades from the mines to mill through improved scheduling and a real-time information system, and to reduce the amount of scrap in the muck.

Utilizing analysis tools such as process flow diagrams (brown paper analysis) and statistical process control charts the teams gathered data to help identify where the problems might be. They were then able to work out potential solutions. Their recommendations have already begun to have an impact.

Ore blending at the Clarabelle Mill, which involves dumping of a measured number of cars of high and low grade ores, was an issue tackled by the teams. Setting up schedules to get the desired mixes has assisted the mill in achieving record nickel recoveries over the past four months.

Additionally, better scheduling has resulted in the elimination of surplus ore cars from the system and has reduced thaw shed heating costs. Bin level indicators have been installed at the mill tipple, Copper Cliff North Mine and Copper Cliff South Mine to assist Transportation in dispatching of ore cars in the future.

One major project that is being examined by Mines Exploration, Metals Accounting and Transportation is an Automatic Equipment Identification System. This would allow for automatic tracking of ore cars allowing each mine to receive proper credit for the ore that it sends to the mill. This will greatly reduce the amount of re-work being experienced.

One of the most troublesome problems the mill has had to cope with has been the occurrence of scrap material arriving with the ore from the mines. Receiving everything from drill steel, screening and crusher chains to plastic pails and garbage, the mill crusher operators have had to regularly contend with choked crushers and the myriad of safety hazards that accompany this problem.

A "scrap-in-the-muck" awareness campaign was organized to take the message out to the mines. Utilizing a video presentation and a live testimonial from mill crusher circuit operator **Don Tessier**, a total of 3,529 employees were asked to help reduce scrap in the muck. Their assistance has already resulted in a 50 per cent reduction in crusher chokes and a 70 per cent reduction in downtime for the crushing plant.

By the end of January, it was expected that each mine would have a "scrap-in-the-muck" team to help identify how scrap enters the muck circuit and how it can be kept out. They will also be looking at others issues such as a recycling program for 20-litre plastic pails and muck size.

Communications is the key to the success of all of these teams. Suppliers and customers working together to improve the safety and performance of the company for the benefit of all of us.

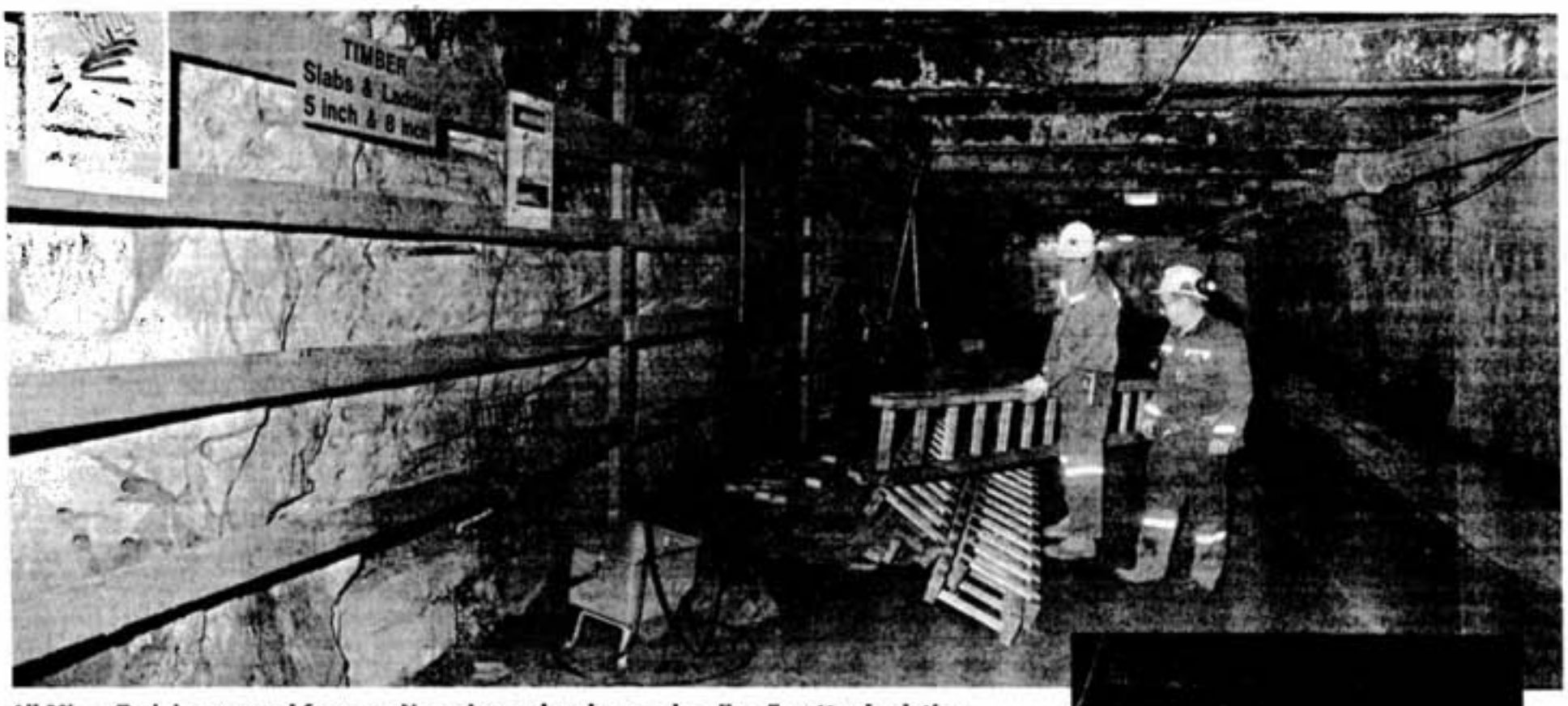
If you would like any further information on these or other Continuous Improvement projects please call the main Ore Flow team office at 682-8955 or 8956 or the Continuous Improvement Team office at 682-5231.

Closing the loop . . . Continuous Improvement team members move on to spread the word about teamwork . . . **Armand Chartrand** previously with the Contracting-out team has moved to the position of manager of Information Systems . . . and **Dan Cooper** with the Materials Management team is returning to the Stobie Mine geology department.

To all of those leaving C.I.T. thanks for your hard work and congratulations on a job well done.

Joining the ranks of C.I.T are . . . **Andy Lemay** from Utilities mechanical who has joined the newly formed Energy team . . . and **Steve Deighton** who will become a facilitator for action teams within Central Maintenance, Power and Utilities.

To our newest members, welcome to the team.



All-Mines Training general foreman Norm Lessard and supervisor Ken Zayette check the materials used by students to build work platforms.

Clean, well-lit and functional, the underground classroom area helps new miners become familiar with the underground environment. Note the rockface behind the bulletin board.

Underground facilities at the schoolstope.

Schoolstope teaches basics

High-tech mining demands brains, not brawn

Traditionally, mining has been considered a machismo profession, often seen as the kind of job that tests manhood, separating the men from the boys. According to mining instructor Al Tryon, there may still be a few "old school types" around who view it that way.

"I figure these guys are not afraid that women miners *can't* pull their own weight, but that they *can*."

A seasoned miner with over 27 years under his utility belt, Al has seen tremendous changes in the profession, changes that have levelled the playing field for those entering the profession by tipping the scales from brawn to brains.

"It's still hard work, of course, but there's much less demand for muscle today and more on education. It's a high-tech environment these days and what I've seen so far has shown that women are just as quick at picking up these high-tech skills as men.

"The biggest obstacle that has to be overcome isn't a physical one but a mental one," said Al.

"It's the totally foreign environment. It can be difficult to get used to for the first time underground. And then there's the mining stereotype, the idea that mining is done by big tough guys."

Al's been an instructor with the All-Mines Training department for about five years. He sees the job among the most worthwhile he's done.

"I chose to go into training. It was an opportunity to meet a lot of new people. It was also a good chance to pass on what I've learned in the business."

Both Al and fellow instructor Mike Morin admit their experience training women miners is limited. Although they've helped put only three women through common core program at the Stobie "school stope," the experience was promising.

"They did well. There was little difference between men and women when it comes to training."

Women students are not treated any different from their male counterparts, said Al. "That's the way they wanted it. Inco's standards are the same for all people working underground," he said. "Perhaps they may take a little longer when it comes to learning the more physically demanding work, but some guys take a little longer, too. We had one guy from a surface job who couldn't handle it. He was sent back."

Al remembers one student, a muscular "weightlifter type" who figured he'd breeze through. "There was another guy in his 50s on the course and in the end he showed the young fellow a thing or two. It's mental attitude more than anything."

The initial apprehension about the underground environment is a little more pronounced among the women, he said, although women adapt just as quickly as men.

"You can see it when we hold underground tours. There's a big difference in attitude about mining after the first visit.

Often people are nervous and scared when they first go underground, but their attitude once back on surface has changed. "Often they'll tell you that it wasn't nearly as bad as they had imagined."

Mike Morin doesn't doubt that, if enough women with enough experience were given the opportunity, they could "run the place."

The only potential problem he predicts is that women, eager to prove themselves, won't be as willing to ask for help as their male counterparts. "Everybody at Inco is encouraged to ask for help when the job demands it," he said. "That's stressed in all Inco's operations. At the same time, women asking for help from men might be misinterpreted by some of the guys."

He has little doubt that women will eventually advance through most of the mining jobs in the future. "The school stope is just a basic training for the mines," he said.

"Ongoing specialized training takes place later and there's no reason female miners won't do as well as the men."

The school stope is a first step, a preparation for underground work only. "It takes maybe five years of underground experience to make a

Instructor Al Lafleur washes up outside the underground refuge station.

The schoolstope rockface behind training supervisor Ken Zayette is full of holes drilled by student miners undergoing training on the jackleg drill.

Taking a break from schooptram training are instructor Al Lafleur (centre) and students Morley Campbell and Romeo Racicot. Scooptram training is not part of the common core program.

Training supervisor Ken Zayette in one of the underground classrooms.

Instructors Al Tryon, Mike Morin and John McNeil with a jackleg drill.

'well-rounded' miner," said Mike.

The new mining technologies are grasped as quickly by women as men. "There may be an advantage for the seasoned miner who has worked with similar equipment, but the eagerness and enthusiasm of the new person on the job more than makes up for the lack of experience."

Ironically, thinks Al, the recent public attention focused on mining may serve to sweep away the stereotype of the miner as a brawny but brainless brute.

"We usually get publicity about the mining business, but little about mining as a profession, and that's helped give the job a negative image. Even a lot of the Inco people on surface jobs have no idea about what goes on underground. People don't generally know that miners are highly-skilled, highly motivated and highly-paid people."

Al said he recognizes that moving underground from behind a desk would be a change, but not as radical as might be imagined.

"The jackleg drill training is about the only real physical part of the entire course," he said, "and even that is more of a technique than it is physical strength. And once you've done it in school stope, it's unlikely you'll ever see it again. Jacklegs are rarely used anymore at Inco mines."

For John McNeil, a 52-year-old school stope instructor with 29 years of service at Inco, mining is a way of life second to none. "There's nothing I'd rather be than a miner. You never get bored mining. There's something new coming every day. If you learn one new thing a day, then after a year you've learned 365 new things."

Working underground is dramatically different today than when he began and it starts with training, he said. "We've taken kids from Cambrian College and had them drill an eight-foot round and break it within six weeks. That's very impressive to me. It's proof to me that our training of our workers is second to none.

"You've got to have a certain amount of strength. But it's more technique than strength. And technique comes with experience and with training.

"If they (office workers) want to work underground, they can. It's attitude. If they're determined to do it, I can't see any reason why they can't."

General Foreman of All-Mines Training, Norm Lessard, said the training program provided by Inco is without parallel in the industry. "Training at Inco is a top priority. It's seen as a key element in our efforts to get the quality that we want. In the past we sent the student out with an experienced crew and he picked it up on the job. The problem was that adequate training depended not only on the individual, but on the crew he was with. A student could pick up bad habits as easily as good working skills. Today, the basics of mining are taught uniformly to all new miners."

While legislation dictates such training, many of Inco's standards are higher than what the legislation demands.

Norm forecasts more female miners in the future. "I think we're just catching up with the rest of the world. There have been women mining in British Columbia for years and women have been mining at Elliot Lake for some time.

The reason we've lagged behind is because we've been doing only limited hiring of experienced miners in the last decade."

Safety is the highest priority in Inco's program and includes such things as Safety Systems, enabling new miners to check out the workplace for hazards. Students are given a general introduction, including home plant and mines orientation. Students also learn how to build drill stagings (work platforms from where drilling takes place.) The basics of ground support are also taught, including screening and bolting. Students learn secondary blasting techniques, operate hoist equipment and learn to operate air slushers that scrape ore from the face. Students learn to recognize hazardous ground conditions and are taught how to reduce the risk by removing the loose material.

Coleman's female miners: Ending the all-male myth

One of the first two female miners hired by Denison Mines in Elliot Lake, Patricia Nielsen now works underground at Inco's Coleman Mine as a support miner.

She enjoys her work.

"I was raised in a mining family and in a mining community," said the Elliot Lake native. "I guess it was natural for me to choose mining as a career."

She said there was a lot of resentment at first. "The men thought we were taking their jobs, but with the more mature guys the resentment didn't last long once we proved we could do the job."

Patricia loves a challenge. "Being one of the only two women in an all-male environment didn't intimidate me. It made me all the more determined," said Pat. "And I figured I'd be contributing by making it just a little easier for the next female coming through."

Being underground didn't bother her. "It's a state of mind," she said. "It bothers some people, man or woman."

After Denison's Elliot Lake operation folded, she came to Inco, starting as a scoop operator and blaster at Stobie. After taking time off to have a baby, she returned to Stobie as a tram operator until being transferred to Coleman.

The work has lots of variety, she said, and there's always something new to learn. "I like the work, particularly when it's very busy. I hate to sit on my hands. The time passes too slowly."

She doesn't deny that females are treated differently in a male environment. "I don't think it's done out of malice or resentment," she said. "Men just aren't used to having women around at these jobs. I find that my suggestions always seem to be the last ones considered when we're discussing things."

Pat said she doesn't feel any different from women working at more traditional female jobs. "I guess I'm a bit of a novelty among some of my friends," she said. "They get a big charge out of what I do for a living.

"I love my job," she said. "The paycheque is a bonus."

Coleman miners Carol Walton and Patricia Nielsen: Miner's domain no longer a man's game.

While few of today's underground jobs still demand a lot of physical strength, she said she's sore sometimes when her shift ends. "But it's a good feeling. You've contributed something, you're doing something with your life."

For Coleman co-worker Carol Walton, the choice of mining wasn't as much a choice of vocation as it was location. "My husband and I live in Levack so I wanted to work there," she said. "I asked for a transfer last year but there were no transfers to the mines at that time. "With Inco's recent downsizing, people were needed for the mines and they asked me if I still wanted to go. It worked out perfect for me."

While the underground job site was new to Carol, working in a male environment was old hat. She was hired on in 1973 as a laborer at Matte Processing. She used a layoff in the mid-'70s to go back to school where she learned stationary engineering. When she was re-hired she went to the Smelter for a year as a laborer in the roaster department, later landing a job as stationary engineer at No. 1 substation.

After a second layoff, this time for 10 years, she was re-hired in 1991 and started again as a laborer at the Smelter.

In her fourth month at Coleman, Carol is gaining confidence with every passing day. "It was a little scary at first," she said. "It wasn't so much working underground as it was the idea of a new environment with new people. You can't help wondering if you can handle the new job."

She rated Inco's training program as hard but fair. "The instructors didn't treat me any different from the guys. We had the same opportunity to learn and at the end of the day we all had the same sore bones. The program was thorough. I think it was more than adequate preparation for working underground."

She found the attitude of her male counterparts much the same as on surface. "I'm sure there was some skepticism that we could do the job by some of the guys, but they were all willing to help the new person on the block."

The opportunity to learn new things is a big reason why the support miner likes going to work these days. "It's never been boring here," she said. "So far I've been involved in everything from general clean-up to operating the scissor truck. I'll be training on the datasolo soon and I'm looking forward to training on the scoop."

If offered a job on surface at Levack, she's not sure she would take it. "It would depend on the job," she said. "I certainly wouldn't give up this job for just anything, just because it's above ground."

Carol admits that a woman at a non-traditional job may have to work under a microscope until she proves herself. "The men accept you and there's little reluctance to work with you, but I'd guess that they'd rather work alongside their buddies. I think that's not going to change until a lot more women go into these jobs."

South Mine's Sue Vallier: It was the challenge . . . and the money.

Sue intends to retire as a miner

Sue Vallier still remembers her impressions of an underground tour she took almost 20 years ago: dark, dirty, totally foreign to anything she'd ever known. But she remembers thinking: "I can handle this."

Last fall, she decided to prove it.

"The challenge. That was the motivation," said the 43-year-old South Mine miner. "That and the money."

Sue's eagerness to confront challenges surprises no one who knows her. She was among the first group of women who were hired at Inco to fill job vacancies usually reserved for men.

Sue started as a laborer at the Copper Refinery where she spent her entire 18 Inco years until last fall. "There was some resistance back then from the men. You could feel it, although nobody said anything to you. You had the feeling that you were an intruder invading a male domain. It wasn't just the guys who were hesitant," she said.

"It was a two-way street. I bet it was four or five months before I felt I belonged, before I was confident enough to feel I was pulling my own weight."

In 18 years at the Copper Refinery, she did every job and learned just about every skill needed at the plant.

"I was getting bored where I was and the opportunities for advancement were limited. I realized that I would be close to pension age before I had a shot at advancement.

"It was time," she said, "to move on."

She applied for a transfer to the mines and started training at the Stobie school stope last fall.

"I knew I would like it. I've never been scared of hard work," she said. Brothers Stephen and Brian Vallier are miners at Crean Hill and Stobie, and Sue knew roughly what to expect through conversations with them.

But it took a while before she got used to her new workplace. "Thinking about all that rock over your head was a bit scary at first. You look up at the bolts and screening and wonder if that's enough to hold all that rock back. The uneasiness is starting to wear off," she said. "It's a matter of getting used to it."

Only four months into her new career, Sue has already trained for several jobs at the mine, including operating the huge crusher that crushes the muck and operating the loading pockets from where the muck is hoisted to the surface by skips.

"The job is mainly pushing buttons," she said, "although occasionally we have to blast to clear hung-up muck."

She's now learning the cagetender's job and hopes eventually to learn to operate the scooptram.

"I'm starting to learn what mining is all about. The change in environment has certainly made a difference. I'm learning new, interesting things. This job has definitely killed my boredom," she said. "I like it here. I plan to stay underground until I go on pension."

She's paid roughly the same as what she earned on surface, but she plans to eventually compete for more challenging jobs as she gains experience.

"I want to do a job that pays bonus," she said. "It may take six months and it might take a year or more. That's okay. Patience is a virtue. I have no doubts that I'll make it."

Shirley Brinkmeier "played the female role until Inco gave her a hardhat and boots."

Eveline Plaunt feels as much at home among the separation building machinery as her male counterparts.

Good pay, challenge, variety all advantages of non-traditional work

When new Inco employees Eveline Plaunt and four other women were told to slow down and not work so hard, their first reaction was suspicion.

"There were only a handful of women working as laborers at that time," said the 10-year Inco veteran, "and during our first few days we worked like blazes trying to prove we could do it. When the guys told us to slow down a bit, we figured it was an attempt to get rid of us.

"Once we could see that there was no hidden motive, we took it a little easier. And it's a good thing. At the pace we were going we could never have lasted."

Today, Eveline is the only woman on a seven-member crew at the separation building of Matte Processing. Like her crewmates, she's qualified on each of the many jobs required to keep the plant operating smoothly.

It's a far cry from the work she did on her first days at Inco.

"I started at the rockhouse at Frood-Stobie," she said. "We pounded with hammers, cleaned up, shovelled and lifted things. It was hard work, but right from the start I discovered that the guys accepted you if you at least tried your best, if you pitched in to do your share."

In fact, Eveline experienced little of the prejudice she expected working a job usually held by men. "I was nervous at first because I expected resistance but the problems never developed."

Only once did she run into discrimination. "The guy was up front at least," she said. "He told me he didn't approve. He didn't want to work with a woman. "Three years later," she said, "he chose me as a partner."

Tired of working two jobs at a time to support her three children, Eveline admits she didn't expect to get the Inco job. "It was a long shot. I applied for a truck driver's job because I had experience driving a school bus. All I wanted was a good-paying, eight-hour job so I could spend some time with my kids."

She said that although there were one or two other women already working at non-traditional jobs, the practice was still a novelty when she signed on.

Yet, she said, she didn't take the job only out of necessity or desperation. "I like the work. I like physical work. I could never be a secretary sitting in an office all day. I get good and tired at the end of the day, but I never have to take the job home at night."

She readily admits there are personal limits to what she can do. "Maybe I won't fill the wheelbarrow all the way to the top and I have absolutely no problems admitting that. I know my limits and that's the same as everybody — male or female."

She doubts if there is anything in her personality or physical make-up that makes her particularly suited to non-traditional work.

"When I started here I weighed 125 pounds," she said, "so I wasn't what you'd call a strong woman. And I don't see myself as aggressive or particularly outspoken. In fact, I'm not the type to go to women's meetings. That's just not me.

"I'm not even sure if it's the physical work I like so much. I think it's more the people you work with. I'm not a loner and I like to work with other people."

Sometimes, being a woman in a male environment can be humorous, like the time she showed up unexpectedly to have chest x-rays taken. "The place didn't allow for a lot of privacy and it was full of guys. They had to send them all away."

At Matte Processing, she said, there's very little work that demands "brute strength." She occasionally uses a shovel and wheelbarrow but it's not a regular occurrence.

Perhaps the major difference between an office job and her work is that she gets dirty.

"I was checking a clean-up pump once and the line to the pump broke. It knocked my

hardhat off and the stuff streamed down on my head and squirted off just like a fountain. I was covered from head to foot.

"But I don't mind getting dirty. You get used to it. They provide you with lots of hot water and soap here."

The Smelter's Pauline Henrie said she has to use muscle from time to time to clean up the feed that sometimes spills from the conveyor, but much of her work is at the roaster department systems and machinery.

"We had dolls to play with when we were young and not cars, trucks and construction sets like the guys," she said. "If we had, women would be just as mechanically-minded as guys. It just takes exposure."

For Pauline, the Inco job was more than a good pay cheque. It was exactly what she wanted to do and for about nine months she showed up almost daily at the employment office before she landed it.

"I wanted non-traditional work," she said. "I've always liked physical activities. I never wanted to sit behind a desk."

After school in Sudbury, she signed on as pitcher of a women's fastball team in Oakville and took on an assembly line job in her spare time.

But after four months in the southern Ontario community, she got homesick, returned to Sudbury and submitted an application at Inco.

"I knew Inco had hired some women into non-traditional jobs and that's what I wanted."

She recalls little resistance from either management or her fellow workers. "As long as the job got done the supervisors were happy, and if you pulled your own weight the guys were happy."

She has 11 years of service with the company, interrupted by a seven-year layoff from 1982 to 1989.

She learned every job at Matte Processing and she loved it. "It was interesting work and it was never the same. You moved around regularly from job to job."

When she was re-called she went back to Matte Processing, working with the services group until a workforce reduction sent her to the nickel reverb group.

Pauline and Sue Fraser (see Triangle story, April 1992) were the only two hourly female employees at the Smelter, yet she found no problems being accepted by her male counterparts. "I can't ever recall worrying about not being able to do a job I was assigned to do. Besides, you're encouraged to ask for help. It's a team effort here. That goes for the guys as well as us.

"I don't think there's anything intrinsic in this kind of a job that takes away your femininity. My friends think it's great. They ask me how I managed to get hired on. I think the attitudes about women in industrial jobs are gradually changing. More women than ever are seeing these jobs as a possibility."

Among only the fourth group of women to be hired on for hourly work at Inco, Shirley Brinkmeier admits she was a little apprehensive when she signed on in 1974. "We had the feeling we were breaking new ground. We had no idea what kind of reception we were going to get. I was separated at the time and supporting two kids. The job was a godsend for me and I was determined to keep it.

"There were no problems. I got no flack from the men, at least there was no overt resentment. It was a matter of doing your work. If you didn't expect any special privileges, you got along fine."

Tired of low-paying part-time jobs, Shirley applied to Inco after a friend told her that Inco was hiring women for non-traditional work.

"I never thought before that I could get that kind of a job," she said. "It was all brand new for me. I had never done any real physical work up to that point. I played the female role until Inco gave me a hardhat and boots. I remember thinking 'God, what am I getting myself into?' "

But the work wasn't nearly as difficult as she thought. "I found I could do most anything I was assigned to. I never had any trouble with any of the mechanical things."

Not that the work was always pleasant. "I remember cleaning out the flotation cells at the mill during my first year. There were four of us women, with a hammer, chisel, shovels and a water hose. At the end of the day we were absolutely filthy, from head to foot. Compared with that, up to that point I'd never really been dirty before in my life. Of course you have to get over running to the tap every time you get your hands dirty. You soon learn to live with dirty hands. Either that, or you'd spend the entire day in the shower.

"But that didn't bother me. I was all smiles on payday."

She found hidden advantages wearing coveralls and hardhat. "Unlike an office environment, it's no fashion parade around here. Everybody is dressed the same and that's much easier on the wardrobe.

Shirley readily acknowleges that she occasionally needs help with the "bull" work. "It takes a man," she said, "I don't hesitate to ask or admit I can't do it alone and that I need help. It's like a family around here and we all help each other, male or female. The secret is to do your best, to try.

"You go home physically tired. When I started working at Inco you often went home sore. There's a few jobs left like that, but the hard, physical work has been vastly reduced over the years."

As for the continuous training required to keep up with the job, Shirley said she catches on like most of her male counterparts. "I'm not the quickest and not the slowest to catch on."

She figures that a lot of women convince themselves that they can't do something. "That's only because they've never tried it. Once they tackle the job, they find they can do it . . . same as the guys."

With 18 years of experience, IPC reactor assistant operator Laurene Wiens is the most senior of all women in non-traditional jobs at Inco's plants and mines. She hired on as a laborer in 1974, one of three women who spent the first few months sweeping sidewalks and doing odd jobs as part of the yard labor crews.

Unlike most of the other women, Laurene wasn't particular about the type of work. "I wanted a job . . . any job," she said. "I applied for office work as well." When Inco called her four months later she figured it was for an office job so she showed up in high heels and a dress and was promptly taken on a plant tour. There were 10 of us and only three jobs. I was one of the lucky ones picked."

Although her only previous work experience was in an office setting, she loved her new job. "My dad died when I was four and I was raised by my mother," she said. "I never learned that men do one thing and women another. When things needed doing around the house like climbing on the roof or cooking dinner, it was no big deal.

"The guys I worked with were great. There was little open resentment. I loved the work. I was on boom trucks, fork lifts, loaders and other equipment. I found little difficulty with the jobs I was given to do."

Perhaps among the more outspoken of the women working at non-traditional jobs here, Laurene makes no appologies for being a feminist. "There's a lot of feminist bashing going on," she said. "A lot of women agree with feminist issues like pay equity and equal rights but shy away from labelling themselves feminists.

"Education is the way we are going to change the system," she said, "and it's the so-called 'hard-line' feminists who are leading the way."

The idea that women . . . and men . . . must fit into predetermined societal roles doesn't allow a person to reach his or her full potential, thinks Laurene.

"The more things I can do for myself, the more skills I have, the more I am a more complete person. I won't limit myself to anybody else's idea of what a woman should be. Personal independence," she said, "is one of the major advantages in breaking out of the strict female-male roles of the past."

EVH

FOR YOUR HEALTH

From the Occupational Medicine Dept.

Straight from the Heart . . .

Most people are aware of lifestyle choices that reduce our risk for heart disease. We are bombarded with messages urging us not to smoke, eat less fat and more fruits and vegetables and increase our physical activity.

But reading and hearing these messages is one thing. Deciding to follow them is another. Health professionals often say the hardest part about exercise is putting on your running shoes. While adopting better health habits may not be easy for others, Inco pensioner **Hank Derks** has made changes in his lifestyle. He underwent coronary bypass surgery in March of '91. Hank says "when I can't walk outside every day, I spend one hour on my treadmill in the basement. I've never felt so good."

The following six strategies can help you succeed.

Understand what you can and cannot control: "Don't set out when the odds are stacked against you," says Patrick O'Sullivan, Executive Director of the Sudbury Heart Health project. "Look for ways to improve your odds, i.e. you can control what comes into your house. If you are trying to reduce the fat in your diet, high fat snacks are not bought on grocery day."

Prepare in advance for difficult situations: When beginning a new habit, think ahead of how you will handle difficult situations. Watch for trigger situations. People trying to quit smoking can remember the acronym, HALT. If they are hungry, angry, lonely or tired, they will feel stronger urges for a cigarette.

Understand the facts: There is a difference between losing weight and losing fat. Some people who concentrate only on losing weight can end up losing muscle.

Develop the right skills: Every behavior change requires certain skills. People beginning regular exercise routines, should mark these exercise sessions on their calendar like any other appointment. It will help you stick to your fitness resolutions. To stop smoking, people need to develop quitting skills. The more often you quit the better your quitting skills become. It may take several times before you break the habit for good. **Denis Babcock,** a heavy duty equipment mechanic at North Mine, knows how difficult it is to quit. "No one could convince me to quit smoking until I had my heart attack in December of '88. I will never smoke again." Denis recovered in part, by attending the Sudbury Memorial Hospital Cardiac Rehabilitation Program which is subsidized by the Occupational Medicine Department.

Set goals you can work toward and achieve: Goals need to be focused and achievable. A specific goal such as "I will walk for 30 minutes three times a week" is easier to meet than "I am going to begin exercising." Take it day by day.

Think success: People live up to their expectations. Successful people see themselves acheiving the outcome that they desire. We need to keep telling ourselves that we can and will succeed.

Dr. Francis, manager and Medical Director of the Occupational Medicine Department, would like to remind you that February is heart month and a good time for a closer look at your risk areas for heart disease. Now that you have some tips for success, you can try those heart healthy lifestyle changes with confidence. Your heart will thank you for it.

Great Inco Angler Tall Tales Contest hooks some fishy tails

Retired drift driller Hector Chevrette wins our Great Inco Angler Tall Tale contest along with a $100 prize for his tall tale about swamped canoes, leaping fish and a dog named Midnight. It's the quintessential tall tale, we figured, with a story line that stretches, but never quite breaks.

Along with a cheque for $100 to Mr. Chevrette, we'll be sending out Triangle pens to the authors of the other tall tales we've printed in this issue, many rivalling the winning entry.

Midnight Fishing

Early one morning I was out with my black labrador Midnight. We were trolling along in a canoe, enjoying the morning sunshine when I got a hit. Putting down the paddle, I started to reel in. Suddenly, about 100 feet behind us, a huge smallmouth bass broke the surface. I knew I had a good one. I continued to reel in as the wind turned the canoe sideways and started to push us back towards the fish. Things were going well until the bass got a look at the canoe and headed towards the bottom, pulling the line as it went. With the wind still pushing us backwards, it was not long before my line was headed under the canoe. All our attention was focused on the fishing rod as it strained against the pull of the fish. Suddenly, on the other side of the canoe, the bass broke the surface of the water, flew in the air and landed in the canoe in front of the dog.

You can only imagine Midnight's reaction to having a large bass unexpectedly jump into the canoe. In seconds we found ourselves in the lake, the canoe sitting right side up but full of water.

Treading water, rod still in hand, I grabbed the canoe. Much to my surprise, the bass was still in the canoe, frantically swimming end to end, the lure still in its mouth. I pulled the canoe to shore, retrieved the fish, and Midnight and I headed for home for a breakfast of freshly-caught (trapped) bass.

Hector Chevrette,
Retired drift driller

No Fish, no Film, no Proof

Talk about fishing, well believe me, I must tell you about my trip I had to a place called Dry Lake.

It seemed that my chum George had heard about a place named Dry Lake and he asked me to join him on his fishing trip. I asked what kind of fish we would fish, but he was very elusive and insisted it would be a surprise. Well with sneery 'ole George, it was futile to question him any further, so a date was set.

Finally the day came, off we went all fired up and ready. Well, we drove for miles. The little bugger wouldn't let out a peep to where we were going! After getting lost a few times, we finally arrived. We loaded the boat and started fishing, but nothing, not even a bite. Some great fishing spot, I thought. So there we sat, fishing. Frustrated, I turned to George and asked, "You got to tell me what we are fishing for."

Well, George fidgeted "I've heard from a good source that some guy had caught a long nose mountain trout here!"

"What?" I said, "You've got to be kidding!" But then to my surprise I got a bite on my line. I couldn't believe it. It took all my skills to bring it in . . . WHAT A SIGHT! George automatically took out the camera and pictures were taken. What a catch! We swore secretly never to reveal to anyone where we had gone.

By this time it had gotten dark and we had to head out. We left the lake and proceeded home. As we were driving, we heard a big "bang"! Something went wrong. We stopped to check it out, but it was too dark. It had to wait till morning. Having only packed a small lunch, only two chocolate bars remained. Morning came and we saw that the car couldn't be fixed. "One of us will have to try to find a way out," said George.

So off he went while I waited. It got very late and I got very hungry. Since George took pictures and all, I reluctantly decided to eat the fish, saving the tail, fins and head. What a shame, we had figured it weighed about 10 pounds. A super catch!

George eventually got back and we headed home. I told George what I had done and he was furious until I reassured him that we still had the pictures.

After we arrived home George phoned to inform me that he had forgotten to put the film in the camera. I told George not to worry because we had the proof, (the fins, head and tail). Unfortunately, the guy that helped us threw them all away. Oh well.

Needless to say, this was some trip! But we are going back, and next time we are going to remember the film and everything!

Leo P. Collin
P.O. Box 306
Gogama, Ontario

Stumped Trout

This story took place north of Elliot Lake on a canoe route beginning on Mount Lake then hopping various lakes with a long portage to Boland River which leads you back to the road.

My sons Andrew, 16, and John, 15 had their own canoe and my youngest son Richard, 12, was with me in my canoe.

We were on our way and decided to make camp on Rawhide Lake at about 6 p.m. It had been a lovely day which turned into a gorgeous evening.

After supper we decided to do some fishing. The fish were jumping everywhere and we tried every trick in the book to hook on to one. The expression "when the fish jump they don't bite" proved itself true. I was waiting for my son Richard to suggest we go back to the camp site. To my surprise, Andrew and John were still nowhere to be seen. They finally came back just before dusk and as it turned out they had been high speed trolling without tying down the rod when something grabbed the hook and out went the rod. I was very upset and told them I would take the cost of the rod off their allowance.

Next morning I was impressed at how fast Andrew and John had their canoe loaded and off they went. Soon it came clear they were searching the lake for their lost fishing rod.

I thought it was hopeless, but I noticed John taking of his top. We paddled over just in time to see John getting out of the canoe, taking a deep breath and down he went. It seemed like an eternity before he came back up with the fishing rod in one hand.

I grabbed the rod, waited until he climbed back into his canoe and then very carefully started to pull up the line. Something was weighing it down. Carefully I pulled it up inch by inch. We noticed that we were lifting an old stump up.

All of a sudden a fish came out from underneath the stump. I kept pulling and up came the stump and the fish. We got the net and netted the fish, a nice lake trout.

What a success. The fishing rod, hook, line and sinker and a fish on top of it all.

Johann Noob

Hooking a Monster

At last, vacation time had finally arrived. I had made plans with my 15-year-old son to do a lot of fishing. I made plans to go to No Name Lake up behind Capreol, and it was about four years since I was last there. The lake is located an hour by truck, or two hours through rough country by all-terrain vehicle. Oh how I dreamed of the speckled trout (Big Ones) and how I love to fly fish.

We loaded my Argo in my truck along with my gear and my son and I took off. There we were four hours later, sitting on the bank of the lake and the specks were already jumping for flies. Oh, I was excited. After we set up camp and had a bite to eat it was 6 p.m., so I got my fly rod and flies and got ready for the big ones. There was no place to stand on the shore so I tied my winch cable around a tree and backed my Argo about 15 feet into the lake. After about 40 minutes of fishing with different flies with no luck, I decided to try my special secret killer fly. On the second cast it hit and man, did it hit. What a monster. I noticed the cable on my winch getting tight and the back end of my Argo was getting low in the water. Time to get in. My son waded out, climbed in the Argo and winched us back to shore. After a half hour fight I finally had the fish in my dip net, and what a 19-pound fish it was. It was a real monster.

P.S. It's a cod fish caught in my native Newfoundland. (picture)

David Barrett,
Copper Refinery

Tracey Strikes Out

Before the sun rises and drys the morning dew, the gear is fully loaded and topped with our canoe.

The weatherman has promised to keep the skies quite clear, and as the canoe hits water we open our first beer.

The rods are now assembled and lures are firmly tied, and everything made perfect for we fishermen have great pride.

And now the rod is drawn back and now he lets it go, and now the fog is shattered by the distance of his throw.

But perch and pike ignore the cast and swim slowly by, so bait is set and line retrieved for yet another try.

The lure is checked and polished with spit aimed just right, he casts again and chants a verse to make them fish bite.

The rod tip moves quite quickly and both of us now know,it ain't no minnow that's on his line, pulling rod tip low.

He snaps the rod up quickly to set the sharpened hook, but this fish is smarter and spits it while we look.

But we fishermen are a stubborn lot and not about to quit, for just as one gets off my line old Tracey gets a hit.

Three hours we stay and play this fish, this slippery Might, and Tracey's arms grow numb from the fierceness of the fight.

Oh yet somewhere kids are playing and telling tales of lore, and somewhere the sun is shining, just off a shaded shore.

Somewhere hearts are happy and fishermen will shout, but there is no joy in Lively, for mighty Tracey has struck out!

Joe Dippong
Central Mills

Hook, Line and Wheelchair

There I sat perched on our van's wheelchair lift with a fishing rod tied to my chair. My wife Esther and I got the notion to go fishing at Vermillion River where it crosses Highway 17.

However, when we got there the bank was rocky and steep. Not exactly wheelchair-accessible. Disappointed, I was ready to turn around and head back home. But my wife was determined. "You love to fish," she said, "and that's what you're gonna do." She dropped the lift so it extended over the water's edge and wheeled me onto it.

Great idea! I thought. I could fish without even leaving the van.

Because of my disability, I couldn't hold the fishing rod so Esther also had the brainy idea to tie the rod onto the wheelchair. "I'll cast it out," she said cheerfully, "and you watch the bobber. I'm going to light the barbecue."

I just got comfortable when all of a sudden the bobberwas yanked violently under the surface. My line became so taut I thought for sure it would snap. However, I wasn't really worried about that. It would take a mighty big fish to break a 30-pound test line.

But what really got me worried was when my chair began to move. I looked down and realized the brakes weren't on. I froze in my chair, speechless. I watched in horror as I saw the water coming at me. At the last second I managed to scream, "Esther, Help!"

Esther got to me just as I was about to topple over the edge of the ramp. She put the brakes on then grabbed the rod and wrestled the monster fish until it tired. She landed it finally — a pike that had to be at least four feet long.

I still get the urge to fish now and then, but I turn my mind to other thoughts.

Bill Horner
Inco pensioner

Camera Shy

We went to fish up north and we drove so far that I thought we were going to James Bay. We finally got there and started to fish. It was a very nice day and the sun was out after a lot of rain. As we were trolling on Kapuskasing River I got a very big bite and it snapped my line. I knew it was a very big one so I fixed up a new line and trolled again. Within a few seconds I thought I hit bottom. I could feel my line pulling the boat. I started to reel in and it was a fish — fighting, jumping, splashing and breaking water.

We got a very big net ready and got the fish into it. I held on to the fish and my partner took a picture. At this point the fish started to jump and fight and struggled in my hands. My hands were wet and I lost my grip and the fish got away over the side of the boat. We were very upset over the entire situation. We got a picture but we lost it. We still have the negative. The fish weighed about 15 pounds.

Réal J. Gaudet
Bus Driver

Timely Pike

. Last summer, I caught a 40-pound northern pike on Ramsay Lake. When I cleaned the fish there was a diver's watch inside his stomach, still running, but no sign of the diver.

Ed Serre
Retired Smelter
Craneman

HERITAGE THREADS

Friends underground, old and new

by **Marty McAllister**

Even as my starship moves steadily further away from day-to-day events in Incoland, carrying me to adventures and challenges I had scarcely imagined before retirement, a large bank of incredible memories remains my constant companion.

Certainly not the least among my memories are those of my years underground, mostly in the late 50s and throughout the 60s. I've recalled those mental pictures a lot lately as I think of more recent friends now heading into those bowels of the earth for the first time.

To boldly go . . .

Facing the unknown is traumatic, I know. Some of you, perhaps not too far from the end of your careers, hadn't expected to face such a last-minute change of direction. Others had been convinced that their small groups were already overloaded with necessary work, so they were 'safe'. Still others were young, eager and dedicated, trying hard to fashion a career and enhance their security in a changing company. And there are those among you who, on a personal or workplace level, simply thought you had already endured enough bad news.

Unfair as it may have seemed, change knows nothing of all that.

But, be of good cheer, my friends: you're heading into the very heart of what Inco is all about, the home of the best and proudest miners in the land. Respect what they are and what they do, let them welcome and teach you and you'll soon be richer and stronger for this change in your lives.

Nor will it be one-sided. For your part, you will bring skills and insights into our mining operations that they have never enjoyed before. I just know you will, because I know who you are. What seems like adversity now should become a great opportunity for all concerned.

Take Time To Laugh

I'm willing to bet that you'll have a ball. It's been more than 25 years since I last punched out at Creighton #5 Shaft, but Inco underground will surely still offer its own zany, wonderful opportunities to laugh at yourselves and with others.

For starters, you'll have a whole new romance with lunch. You'll no longer have to hide it in your briefcase, nor in a plain brown wrapper that you only open among friends in the cafeteria. You'll carry it proudly, in a lunchpail!

Now, there's something to study with care, no kidding. That seemingly simple contraption will, of course, carry lunch and refreshment, but it will also be a medicine chest, magazine rack, a portable stool while waiting for the cage, a political billboard, even a fashion statement for the artistic. To handle all these jobs, it has to be large, strong and durable. But beware: never, ever carry it under your arm on a crowded cage, your ribs will never forgive you. Tuck it between your knees, and everything will be fine.

Speaking of cage rides, I always found them exhilarating, except when I had to stand face-to-face with a garlic-eater or when I had an ear infection or a hangover.

Then there's the climate. Our deep mines offer a trip to the tropics every day in the winter. What a feeling, when the wind-swept collarhouse is at 20 below and you drop away from it into the warm embrace of the mine.

Down on the level, underground realities greet one pretty quickly.

In my day, when there were no women underground, those most personal of amenities, the toilets, were designed to be purely functional. Even a shy young man would blush at the lack of privacy on a six-holer (three to a side, back to back) latrine car that sat on a none-too-discreet siding. No dividers! False modesty disappeared in a hurry and we learned to laugh about it, but I never quite got used to cheerfully greeting passers-by.

There were some places where modernization couldn't come soon enough!

Speaking of high-tech

If your exposure to heavy equipment is limited to uncle Harry's '48 DeSoto, you may find it a little disconcerting the first time you watch an eight-yard scooptram attack a muck pile, especially if it's remotely controlled. It'll sure change any idea you may have had that high technology is applied only to delicate things like computers and VCR's.

And, if you follow that lumbering monster into the underground garage for service, you'll see in action only a few of the skills and tools needed to keep today's mine operating.

Indeed, you'll become aware of mining technology that is based on computers, not only those that churn words and data like you're used to, but also computers that actually make real physical things happen. They even look after a lot of the routine, dirty jobs we used to do. Sure, there are still a few of those left, just as there are still some physically demanding jobs left, but I wouldn't lose any sleep worrying that such tasks will fill the remainder of your working days. I've never known any one of you to shirk what needs doing, so you'll take your turn and get on with the more challenging things.

Rebuild your dreams

Believe me, I empathize along with you to know that your dreams and aspirations have been thrown a detour, but I know you'll be just fine. Have confidence in your new workmates; in their world, mutual trust and cooperation is a necessary way of life.

Besides, as my mother used to say, one door never closes but another opens.

Editor's Note: There will be a two-month interruption in the Heritage column while Marty is out of the country. Heritage Threads will be back in May.

INCOME *ideas*

by **Richard Birch**

Wills are the way

If you haven't asked yourself this classic question lately — what would happen to all you've worked for if you were to die tomorrow? — you probably don't have a will. Or if you do, it's probably gathering dust at the bottom of a desk drawer and is in need of an overhaul.

Your will performs one major function — it expresses your wishes after you can no longer make them known personally. Primarily, it directs how your assets are to be distributed and appoints someone to carry out this distribution (an executor). A "properly" drafted will is a legal document that will be recognized by your heirs and the courts.

If you die "intestate" (without a will), or with an improperly drafted, invalid will, a provincial court will decide how to divide your property. The rules vary from province to province, but you can rest assured that the division will likely have little to do with what you planned.

Professional help a must

Consulting a professional to draft your will is essential and generally inexpensive. He or she will be familiar with the technical rules and requirements which a will must meet in your province to be valid. And because a professional is trained to ask questions, he or she should be able to sort out with you what your real intentions are and, importantly, translate these intentions into accurate legal language.

Regardless of the simplicity or complexity of your will, you will need to appoint at least one executor and you should also name an alternate. It is the responsibility of this person to see that the wishes expressed in your will are carried out, that debts are paid and that property is distributed. Spouses commonly serve as executors, as do responsible adult children or personal friends. In some instances, institutions such as trust companies are appointed.

Your will should also name a guardian for any of your children under the age of 18 years, given the possibility that both you and your spouse could die together in an accident. Obviously, to avoid confusion and legal headaches, the same guardian or guardians should be named in the will of each spouse.

Some things you can't do

There are certain measures which you are not at liberty to take in your will. Each province has in place laws regarding minimum obligations to dependents and spouses.

By giving certain survivors the right to petition the courts for a share of the deceased's estate, these laws generally ensure that certain family members are not "cut out" of a will.

However, it should be noted that certain assets are not considered to be part of your estate. These may include property held in joint ownership, pension income, proceeds from a life insurance policy that are directed to a specific person rather than to your estate, and gifts of property made while you are alive.

Bear in mind your will is a living document — it should be changed as your circumstances and wishes change. For example, both marriage and divorce may affect the validity of your will, depending on your province of residence. Subjecting your will to an annual check-up may be as important as drafting one in the first place. Don't put it off until it is too late.

Jon Gill and family on arrival at Soroako, Indonesia after more than 20,000 nautical miles of sailing and 13 countries visited in two years.

From miner to sailor and back again

Not many people get the opportunity to sail the open sea and take in breathtaking sunsets, but the Gill family did just that in 1987 and treasure their memories to this day.

Now back on dry land, Jon Gill, manager of the Coleman East project, said he and his family have a lot of wonderful times to remember.

Their adventure began in June of 1987 when Jon was working at the McBean Gold Mine and Mill. He and his wife Candy decided that since the mine was coming to a close they would like to spend more time with their three children Caida, Gareth and Kirsten. "It was Candy who got the idea to sail to Indonesia and get to know the children better," said Jon. But the family didn't just jump into a sailboat before leaving, they tried to prepare themselves as much as they could. "We decided to take three months and read everything we could to prepare ourselves. It took many trips to the library and hours of studying. "We read all of the disaster stories first and analysed why they happened and how they could be prevented so we knew what to avoid when we went sailing."

They learned how to select a boat, tie knots and handle emergency medical problems, all of which would be useful on their journey. The only sailing experience they had was sailing a raft on weekends while Jon worked for Inco in Indonesia prior to working in Northern Ontario, as well as a course in offshore sailing in Tampa before they left.

When they felt prepared enough to embark on their once-in-a-lifetime experience, the Gills sold everything they owned and went to Florida where they bought a seaworthy sailboat. "We found a 41-foot boat that came from Europe and had been sitting in a canal for about two years," he said.

From Florida, the Gills sailed to a number of places including the Bahamas, Cuba, through the Panama Canal and to Indonesia. Jon said he and his family learned a great deal from their two-and-a-half year voyage and had a tremendous amount of fun in the process.

"Some of the things we learned are that there are a lot of good people in the world and that we have incredible internal resources. I grew extremely close to my children and got to know them as valued friends."

The children, aged 10, eight and six at the time, studied their books while away from school, but Jon believes they learned more on their trip than had they been in class.

"They were living in a big classroom," he said.

Though Jon admits that he and the children did get seasick while leaving port they managed to overcome it and the only medical problem was that he broke an eardrum while diving for an anchor. Other than some occasional bad weather and high seas the trip was smooth sailing.

Now back at work, Jon reflects on the experience. "There is nothing like watching an albatross floating six inches above the waves, that's a pretty good feeling."

He said they have no regrets about doing what they did and each of them benefited from their trip. "It was a good thing to do and well worth the potential risk."

The family returned to Sudbury in April of 1990. "We came home because we had gotten what we wanted and it was time to become a member of a community again. We didn't want to deprive the children of spending time with their peers."

Such an excursion is certainly not something that everyone can or would want to do but Jon said he wanted to get some different personal challenges. "You begin to realize how small you are in the grand scheme of things when you are so close to the immensity of the ocean," he said.

"It is natural to be scared of change but sometimes you have to make a leap of faith and go out and do it.

"You only have one chance at the wheel."

Yesterdays todays

Yard crews deliver the goods

40 Years Ago

"There's an astonishing variety of material required in the intricate business of running a modern mine," the article said. And it was the yard crews, in weather fair or foul, in summer heat or winter cold, who kept the steady stream of supplies flowing into Inco's vast underground mining operations.

The Triangle made a swing around Inco's mines, catching crews loading nine-inch wooden posts, scrap steel, eight-inch pipe weighing 800 pounds, steel I beams, steel rails for underground tracks and countless other material in the middle of winter . . . and mostly by hand.

Whether it was a slusher, plate for chute linings, a five-ton reel of electric cable or case after countless case of blasting powder, the yard crews kept the supplies flowing to feed the gigantic appetites of Inco's modern mines.

And without them, the article said, things would soon grind to a halt.

Other feature stories that month were: "Ontario badminton titles at stake in Inco Club meet." "Levack is proud of smart new curling centre." "Sudbury Arena to be scene of Canadian Curling Championship."

25 Years Ago

They were the largest transformers ever supplied to a Canadian industrial customer and they were being installed at International Nickel's No. 4 substation at Copper Cliff.

Two units, with a combined capacity of 600,000 Kva., enough electricity to service two average-size Canadian cities, would transform 230,000-volts of Ontario Hydro power to 72,000-volts for distribution to the company's plants in the Copper Cliff area.

Weighing 365,000 pounds when stripped and 565,000 pounds when fully assembled with lightning arrester and other attachments, each unit measured 53 feet in length by 20 feet in width and were 31 feet high. It was so massive and heavy it needed a custom designed railway car 95 feet long with 12 wheels in swivolling trucks at each end to move it.

The greatly expanded electrical energy, said the article, was needed by International Nickel in 1968 to increase its nickel production capacity by 100 to 150 million pounds in the next three years.

Other feature stories that month were: "Inco has specialists in many categories." "Metal aircraft successfully adopted for use with Inco's airborne electromagnetic system."

15 Years Ago

"Copper Cliff Mine Introduces Uphole Cable Bolting." Although cable bolting had been on the mining scene for many years, this was the first application of the method at Inco, using cable bolts instead of rock bolts to stabilize large portions of rock, especially in support of crown pillars above large blasthole stopes.

Cable bolts, as long as 42 feet, were inserted into drill holes and held in place with grout (cement) and by bolting a grout plug to the bottom of the hole.

Advantages of the new system included portability, efficiency of installation, lower costs, greater safety and less set-up time.

Other feature stories that month were: "Maximum suggestion plan award raised to $10,000." "Net earnings for fourth quarter of 1977 sharply down from previous year."

Mathew Groves pins name on mascot for Inco Energy Awareness Program

Less *What*???
No.
Less *Watt*!!!

Fits right into Inco's energy awareness program, doesn't it? That's why nine judges chose the name from among 60 entries in a Power Department contest to name the program's official mascot.

Nine-year-old Mathew Groves, son of Purchasing's Paul Groves, got the official winner's handshake from Ontario Division president Jim Ashcroft at a special ceremony recently.

The youngster was presented with a framed poster, a sweatshirt emblazoned with the mascot and a battery charger.

As soon as can be arranged, Mathew will also be taken on a Power Department tour. His name and picture will also appear in 20,000 copies of a 16-page energy conservation comic/coloring book soon to be distributed to area elementary schools.

A Grade 4 student at St.Anne's School, Mathew said he got a little help from dad but thought of the name himself. "I knew I had to come up with something different," he said. "It was the only entry I submitted. I figured it might win. I didn't realize there would be that many other people entering the contest."

Mathew and dad Paul Groves of Purchasing with a framed poster of Less Watt. Mathew came up with the name to win the Energy Awareness Program mascot contest.

Not bad for the first contest he's ever entered, he figures, but he's not going to allow the win to turn his head away from his dreams. He doesn't think he'll go into advertising or marketing.

"I'm gonna be a hockey player when I grow up," he said.

Cartoonist Vic Theriault of Information Systems created the mascot. He's in the midst of doing the drawings for the coloring book and poster campaign that forms the next stage of the awareness program.

Along with Jim Ashcroft and Vic Theriault, the other judges for the contest were Central Maintenance assistant manager John LeMay, Steelworkers Local 6500 and 6600 presidents Dave Campbell and Harold Love, Andy Lemay of the Power Department, Cory McPhee and Diane Flynn of Public Affairs and consultant Ralpha Senderowitz.

A letter of thanks from Jim Ashcroft has been sent to all contest entrants. Along with each letter will go an ore sample card, a poster and a scooptram pin.

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