The Sherritt Story: From Company Town to Multinational Corporation

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Introduction

Anybody who heard the name "Sherritt" for the first time since the mid-1990s would have been surprised to see the contrast between the company's staid past and its new, controversial image. The company's CEO, Ian Delaney, formerly known in financial circles as the "Smiling Barracuda of Bay Street" had now seen his moniker changed to "Castro's Favourite Capitalist." The quiet mining company, which had never had a hint of scandal in its history of some seven decades, was now being reviled for its dealings in Cuba. Indeed the Senator from North Carolina, Jesse Helms, was deliberately taking aim at Sherritt--many of whose management staff suddenly found themselves the victims of the Helms-Burton legislation. By the time that the dust had settled on this law, Title IV of the document would expressly prohibit eleven Sherritt executives (and their families) from setting foot in the United States.

All at once this conservative mid-sized mining/refining company from Canada found itself facing the full wrath of U.S. policy against Cuba. Their business success in turning around a moribund company into a profitable venture--the epitome of capitalism--was now vilified in Washington because of Sherritt's joint venture with the Cuban government. An extraordinary development indeed, particularly so when controversy was alien to the company, which was merely seeking to stave off financial collapse by refining mining ore found in Cuba. Lost in the shuffle of this controversy was the fact that the alternative--since there was no ore available from traditional sources in Canada--was the death of the company. Solid business sense and entrepreneurial vision (as well as the struggle to survive) had crashed headlong into the murky waters of U.S. international politics.

The history of Sherritt, be it as "Sherritt-Gordon Mines" (as it was known for most of its corporate life) or the more recent "Sherritt International" (complete with several subsidiary interests) is certainly a story of survival and adaptability. Most of its pre-Cuba dealings are also remarkable for their low-key, traditional--and rather dry--nature. Controversy had never stalked Sherritt, which had steadily evolved as a respectable (and rather stodgy) mining/refining company in western Canada. (In addition the company has long possessed an enviable reputation for first-class research and development, far beyond the size of Sherritt itself). In many ways the company's evolution until the early mid-1990s parallels that of the Canadian mining industry as a whole, a medium-sized mining company evolving as it sought to survive in the face of ever-larger transnational corporations. As a corporate study it is useful since it illustrates the manner in which company strategy has developed in the face of several major crises, each one of which could well have led to its closure.

The small-town origins are of course long gone, although an important part of that legacy remains--particularly among the few remaining old-timers in the company. And, even though it has been severely diluted due to corporate restructuring in the mid-1990s, much of this Sherritt culture remains. This can be sensed clearly at the large refining plant in Fort Saskatchewan, Alberta, where there are many workers who are second- and even third-generation employees of the company. Moreover the Sherritt story is inherently Canadian, and its corporate culture quite distinctive from U.S. counterparts of the time. It is true that Sherritt technology has been exported around the globe, with expertise and engineering triumphs employed in refineries around the globe. At the same time the focus of Sherritt has always been in North America, principally in western Canada. As a result the chapter on Sherritt's increasing involvement with

Cuba in the 1990s is in many ways an anomaly--although it does constitute a textbook example of corporate survival in the face of impending doom. In this way, then, it parallels a variety of innovative (some would say desperate) measures taken by the company's management at different stages of the company's history. This study examines the "big picture" of the Sherritt story, analyzing the development of the company--in several clearly identifiable stages--and tracing its evolution.

Most of the small mining companies that started up when the Sherritt operation originated have long disappeared, and for several reasons--because of a lack of vision, mines simply running dry, a lack of suppliers of ore, or (more likely) because they were swallowed up by the larger mining companies in Canada and the United States. That this small outfit, which started with remarkably limited deposits, centred around a small company town in the wilds of the Canadian bush should have survived, is a worthwhile story in itself. But that it should have evolved from a modest mine and company town to a major refining business, employing thousands of employees after the mine--its original raison d'etre--was closed down, is also interesting. When you add to that mix the development of a successful fertilizer business (using byproducts from the refining process), a solid international reputation for research and development, a variety of high-tech spin-off benefits, the diversification of business interests in Cuba (expanding from mining to market gardening, oil exploration, communications and power generation, for example), and fresh investment opportunities being pursued elsewhere, the story becomes even more curious. And then of course there was some fascinating company in-fighting (the hostile takeover bid by Ian Delaney), and the situation of the company as it became swept up in the maelstrom of U.S-Cuban politics. Boring it certainly was not!

This study of the Sherritt corporate interests during the past seventy-five years is divided into several sections. Roughly it follows along chronological lines, although it does examine separately in some detail aspects of the company that fall outside this approach. Its basic goal is to try and illustrate **how** it survived during the rough-and-tumble years of company mergers and takeovers, and--at the risk of appearing naive and overly sentimental--**why** this company has made a difference.

The thesis of this work is that this company offers a unique case history in both the preservation of core values (which spring from its early days in the bush of northern Manitoba) and the ability to adapt to the fast-moving era of globalization. It is worth noting from the outset that this has not been an easy struggle. Indeed there have been many corporate peaks and valleys, and Sherritt has been close to failing on several occasions. There are some remarkable characters who have played a significant role throughout Sherritt's history, and the corporate culture has shown a remarkable ability to retain much of its initial spirit. Just as important, however, is the lesson of survival and adaptability that can be learned in this age of mega-mergers and fast-moving globalization. For, while other companies of a similar (and often larger) size have been swallowed up by huge corporate entities, Sherritt has shown resilience and flair, changing its focus at times in a radically different fashion when the circumstances demanded it. And to a large extent it has worked--much to the surprise of industry observers around the globe.

The seventy-fifth anniversary of the foundation of the company in 2002 is a useful benchmark to reflect upon the evolution of this mid-sized Canadian corporation. If this study had been written fifty, twenty-five or even ten years ago, the story would have been very different. In 1952 the story would have revolved around the construction of the Fort

Saskatchewan refinery, the challenges posed by the exhaustion of the Sherridon ore body, and the potential from the new Lynn Lake mine site. By 1977 the traditional source of ore at Lynn Lake had been mined out, and the mine closed. (Meanwhile the refinery--and the very future of Fort Saskatchewan--depended upon obtaining secure feedstock). And in late 1989 the central theme would have been the apparent demise of the corporation. Crisis and promise--the lowest common denominator of the mining industry--have certainly been a prominent feature of the Sherritt story.

If we fast-forward to 2002 we can see significant changes. Still looming large in the Sherritt empire are the varied interests in Cuba--and they will do so for the forseeable future. But there is a sense too that, it is now time to move on, maintaining and developing the (profitable) Cuban ventures, but also looking for fresh opportunities elsewhere. (The 2001 purchase of Luscar Coal illustrates this approach well). Adapting to the new international financial order is not easy--particularly for a corporation which has to compete with other transnational companies with far more resources at its disposal. Yet adapt Sherritt must do, if it is to survive in a world of far larger competitors. Thus far its record has been exemplary, as this company history seeks to show. And if this record continues, a quarter of a century from now, smart money will be on the post-Delaney management blazing a new trail--as has happened at key junctures of the Sherritt story. Much of the original Sherritt ethos has indeed been lost--but it is still alive and strong.

CHAPTER 1

The Foundation of Sherritt Gordon

The varied interests of Sherritt International at the start of the new millennium bear little comparison with the humble origins of this company almost seventy-five years earlier. That a small mining deposit in northern Manitoba, discovered by a fur trapper, could eventually become a leading company in the Canadian mining industry, is remarkable. (In the mid-1950s, Sherritt Gordon Mines Limited became one of the largest nickel producers in the western hemisphere, after INCO and Falconbridge Nickel Mines Ltd. It held this position for some time before the age of corporate mergers and takeovers reduced its importance). When one adds to this the fertilizer component that in subsequent decades became such a large feature of the remarkably varied Sherritt commercial interests, a picture emerges of a fast-moving, constantly evolving multinational company that has also shown remarkable survival skills. Sherritt has indeed come a long way from the early days when it counted on a handful of prospectors and meagre resources--although the process has not been without many difficulties along the way. As is so often the case with major mining discoveries, it all started with a strong personal interest, a streak of good luck, significant perseverance, and perhaps ultimately even a vision of the operation's potential. Yet neither Carl Sherritt nor John Peter Gordon (after whom both the town of Sherridon and the Sherritt Gordon company were named) could ever have imagined what they were starting seventy-five years ago.

The origins of the company go back to Phillip Sherlett, a Cree trapper with an interest in prospecting. Uneducated and indeed unable to speak English, yet keenly aware of mineral deposits, he lived with his family and friends on Sherlett Island in Cold Lake. Most of his time was taken up with subsistence living and his trap line, a common pastime in northern Manitoba at the time, from

which he eked out a meagre existence. For years he had also prospected, and in 1922, together with other family members, he staked claims on a copper showing near Cold Lake. The following year Carl Sherritt, a fellow trapper and prospector, followed up on Sherlett's initiatives. The rest, they say, is history.[1] Speaking to a class of schoolchildren in Sherridon in 1946, company executive Cecil R. Neely reminisced over his fateful meeting with Sherritt. In the early 1920s he was manager of the Canadian Bank of Commerce in The Pas when Sherritt came into town. The prospector had engaged in his usual low-key manner: "I can remember him arriving at my office in The Pas in the year 1923, with one packsack filled with furs and another filled with copper ore. He said 'I think that I have found something up north and it looks good, and I hope it is, but I am going back to do some more work.'"[2]

It is important to give some idea just how distant this mine site was, for often we fail to appreciate the degree of isolation of mining camps--or indeed how hard it is to find mineral deposits in the first place. In his same address to local school children, Neely put the discovery in context by explaining just how isolated Sherridon was in the "olden days": "We left The Pas by steamboat ... The steamboat took us as far as Sturgeon Landing and from there we crossed a 17 mile portage by wagon. From there we took canoes and travelled through all the lakes and rivers, leading to Cold Lake. ... It takes about a week of easy travelling from The Pas. All the supplies etc. for this camp in those days came by this route in the summer time. During the winter they used to freight from mile 55 along the Hudson Bay railway ... Then the airplane did away with dog teams, canoes, etc."(p.3). This was truly bush country--indeed, the area around Sherridon was actually unmapped until the late 1920s.

There were many key people involved in this formative stage of Sherritt Gordon mining

interests. Ironically both Sherlett, the original discoverer of the mineral deposit, and indeed Sherritt, who restaked his claims after Sherlett's became available, only played minor roles in the initial development of the company, despite lending their names to it.[3] It is to their credit, however, that the promise of these particular holdings was developed so thoroughly. (It is worth noting that, after Sherritt Gordon Mines was incorporated, and at the request of Eldon Brown, the company provided Sherlett with a pension for the rest of his life. After his death, his wife continued to receive it).

The story of the Sherritt family is typical of many immigrants who came to North America in the 19th century to seek a new life. Many decided to go into farming, and the Canadian government--faced with immense territories to manage and a scarce population--was keen to encourage settlers to head west and homestead. Carl Wellsley Sherritt was born of Canadian parents in Dakota Territory in 1894, the fourth of seven children. His grandparents had all emigrated from Ireland, and his father Aaron Sherritt had subsequently headed west to homestead. It was in many ways a traditional story of poor immigrants seeking their fortunes in the New World, leaving behind limited prospects, and taking a leap of faith in the rapidly developing farming areas of North America. Carl's first passion was hunting, and indeed when he was only eleven years of age he had already sought to market the scent sacks from skunks which he had trapped.[4] The young Carl Sherritt worked for many years on his father's land, spending his spare time hunting and fishing. When he left home he worked in logging camps and sawmills, and in 1916-1917 he worked in Fort Nelson on Hudson Bay. In May of 1918 he signed up with the U.S. army. He was discharged as a corporal in February 1919, having been paid off in full--all of $80.95. Life in the army was not all that he had imagined, however, and he reflected with some sadness on being away from the bush: "I am almost afraid tho that this army life has spoiled me for living alone and staying away back

from civilization and I am sure it has spoiled me for doing any hard work so you see I am in a bad fix, but I guess we won't starve."[5]

Shortly after his discharge, Sherritt set out to discover fame and fortune in Manitoba in the early 1920s. He was only 23, already a World War I veteran, and with a fervent desire to work in the North, away from "civilization." Trapping, and to a lesser extent prospecting, were the main desires in his life, and a study of his correspondence reveals an obsession with living in the rough-hewn existence in the North. A letter to his mother on January 22, 1922, gives a good flavour of this difficult life (and of his limited spelling): "Dear Mother, I am just dropping you a line to let you know everything is fine up north of fifty-three. This has been a fine winter for traping ... I am on a nice big lake here. I am camped on an island and there is another island in between me and the shore that has four lakes on it ... I do not think there is any white man that know how big this lake is ... Well I guess I had better close now as the frost has cracked my ink bottle and the ink is dripping out and I have to right another letter and if I do not hurry I wont have no ink left."[6]

In 1922 he was attracted to the potential of Sherlett's claims, and the following year decided to stake his own. Sherritt was interested in the mining potential of the region, despite a lack of formal education in the industry. A study of his letters reveals, however, that in many ways this interest in mining was really only a means to an end, with the real objective being life in the bush. As he noted himself, "Hunting gold is all right but trapping is better."[7] Hardly the kind of sentiment that the founder of a large mining company would be expected to have expressed! When Sherlett's claims lapsed in 1924, Sherritt and his friend Richard Madole (a fellow American who had trapped in the north not far from Sherritt for many years) restaked them in their own names, in all some 16 claims. They could scarcely have imagined the financial success--or the personal difficulties--that

awaited.

The other partner in the original Sherritt-Gordon equation was John Peter Gordon, a civil engineer who had come to The Pas several years earlier to work on the Hudson's Bay Railway. After completing his work on the railroad, he decided to remain in The Pas, which by 1918 had become the principal base for prospecting and exploring in northern Manitoba. Sherritt and Gordon were introduced to each other by Cecil R. Neely, then-manager of the Canadian Bank of Commerce in town. In those days branches of this bank in northern Manitoba went far beyond their modern-day "banking" duties. In fact one of their prime concerns was handling the sale of furs, and Carl Sherritt brought both furs and ore samples to Neely. In June 1925, aware of the potential of Sherritt's samples, the bank manager advised him to option the claims, and set up a meeting with Gordon to assist him with the financial arrangements. Sherritt was clearly in possession of a lucrative piece of land, but lacked the financial resources to develop it, while Gordon was indeed in a position to back financially this operation--and also possessed a keen interest in developing mining operations. Gordon took the first option on the properties staked by Carl Sherritt, and sought investors in order to develop further the promising mining holdings. Gordon was well connected in financial circles in eastern Canada, and obtaining financing for such promising operations was not especially difficult at that time. In particular his brother, George Gordon--a Canadian Senator from North Bay--was interested in financing the project, and was soon a major financial backer of the operation. This was the first stage in the financing arrangements which were supported by a number of partnerships as the mining resources were carefully measured.

A final agreement between Sherritt and Gordon was reached in 1925, according to which Gordon was to take an option in his own name, with the right to re-option the property to anyone he

wished and for the amount he wanted, providing that he kept up payments to Sherritt and Madole. (An initial payment of $5,000 was to be made to Sherritt, with subsequent annual payments--of $25,000, $50,000, $75,000 and in 1929 the balance of $95,000, for a total of $250,000). J.P. Gordon made a quick trip into the property, added some claims of his own and on July 16, the "Sherritt Group" was optioned to J.P. Gordon. Later that year Gordon re-optioned the property to two mining engineers, Alex Fasken and E.P. Earle, who built a camp and drilled over two dozen shallow holes during the winter of 1925-26. The initial results were quite encouraging: two orebodies were discovered, with an aggregate length of almost 6,000 feet and a width of 17 feet, with an average grade of just under 2.5% copper and 6.0% zinc. These were promising results indeed, definitely commercially viable, but the two engineers decided that they preferred to look elsewhere for even richer deposits. When the option was not renewed by Fasken and Earle, others were more than ready to take it up--and specifically a young mining engineer from Toronto, Eldon L. Brown.

It is clear that the driving force behind this fledgling company was not the financial backers. Indeed, a study of the archives of the Sherritt corporation in Fort Saskatchewan, Alberta, reveals that, while the company for decades bore the names of Sherritt and Gordon, the real imagination behind its development was in fact Eldon Brown, known affectionately throughout the company as "Brownie." If there is a hero in the history of Sherritt, that honour should be given to Brown. He was born in Toronto in 1900, and after graduation as a mining engineer worked in the Porcupine area in northern Ontario, and prospected in Québec. As an employee of the Victoria Syndicate, he was sent to The Pas in March of 1926, to assess the mineral potential of the area. He became friends with Neely, the bank manager, who told him about the property. For the next two years prospectors, financial backers and engineers would explore the area, taking out options on the site, relinquishing

them, and re-optioning them. Throughout this process, Brown never lost faith in the area's mineral resources--and was bound and determined that a mine be set up there.

His interest had already been awakened in the potential of the Sherritt property, and upon hearing that the options were not to be renewed, quickly set out to arrange for a group of wealthy businesspeople to purchase them. Brown was wholly convinced of the site's mining potential, and worked tirelessly to convince others of this fact. According to the readable account of Charles Hames and Alan 'Doc' Gallie, when he overheard that Fasken and Earle were to let their interests in the property lapse, he interrupted a journey he was making and walked 16 miles across the bush to Sturgeon Landing and caught a boat back to The Pas. There he advised the Victoria Syndicate to acquire the option--which they did.

Brown immediately undertook a report to estimate its commercial potential. He was determined to take advantage of the site, and he threw himself into the project with his usual zeal. Working with a small crew he surveyed all of the claims, and staked 10 fraction claims. Unfortunately for him the Victoria Syndicate later decided against continuing to invest money in the project--and Brown found himself out of a job. This was a source of great frustration to the young mining engineer, who was aware of the mining potential of the property, and was itching to start the operation up. It is at this stage that Bob Jowsey enters the picture. Jowsey had stayed with Brown in the summer of 1926, and together with his colleague had examined the property. A mining man himself, he too became convinced of the area's potential and expressed an interest in it should it become available. After the Victoria Syndicate decided to relinquish the property, Brown quickly approached Jowsey, who then had him prepare a thorough assessment of the site. When this was completed Jowsey spoke with Thayer and Halstead Lindsley, two Americans with a background in

mining (Thayer was a geologist and his brother a mining engineer), and requested their financial support to develop the site. Sherritt Gordon Mines Limited was eventually incorporated on July 5, 1927. Sherritt and Gordon provided the name of the company, and Eldon Brown was hired as Superintendent--the first employee of the company. Lindsay became the first president--a role he continued until his death in 1945. The financial arrangements were straightforward: the authorized capital was for 6,000,000 shares of $1.00 par value. The promoters assumed 3,000,000 shares, while Sherritt and Madole were bought out in one step. Sherritt received $200,000 in cash and 100,000 shares of stock--a fortune at the time--while Madole received $60,000 cash. The financial arrangements thus formalized, the business of developing the mine then began. Sherritt Gordon was officially in business.

It was at this point that the story of Carl Sherritt took a tragic turn. He had received a fairly large reward for his farsighted prospecting, yet was not to live long afterwards to enjoy it. He had used part of his newfound wealth to buy a small airplane, and to take flying lessons, a pastime which enthralled him--but which would lead to his untimely death. In April 1928, just a year after his lucrative sale of the mining interests, he was killed while stunt-flying over The Pas. According to most reports of the day, this highly intelligent and rugged individualist (still only 33 years old) had simply forgotten to fasten his seat belt, and tragically fell out of his plane to his death. The daring prospector simply forgot one of the most basic necessities of common sense while flying, and was not to live to see the fruit of his labours. Perhaps more tragically, a young boy along for the ride in his plane also fell to his death, victim of Sherritt's carelessness.

Mining history in Canada is a rich lore of colourful characters, and this company was no exception. One particularly interesting person was Sherritt's original partner in the purchase of

Sherlett's claim, Richard Madole, an American prospector and trapper, known throughout Manitoba mining circles simply of the time as "Dirty Dick" because of his heavy drinking and hard-living style. Eccentric, difficult to get along with, and every inch a rugged northern character, Madole had also parlayed his early interest in the Sherritt property into a sizeable (and unexpected) fortune.

With cash in hand he set out happily for the bright lights of Winnipeg to enjoy the good life: "Dick wasted no time getting to spend the money. He hired a special private passenger train in the Pas, loaded it with all his friends and headed for Winnipeg. Here they had a floor in the old Royal Alex Hotel and the party really got rolling. Apparently one night the girls asked Dick about snow shoeing. Dick had a room filled with corn flakes to a depth of a couple of feet and proceeded to demonstrate. Eventually some semblance of order was restored, probably by a lack of funds, and everybody got back to The Pas."[8] Eventually Madole met up with a woman named Edith Metcalf, known locally as the Moose Jaw Kid, and together they returned north to a life of prospecting and trapping. They separated some time later, and she set up a trading post on the Churchill river at Pickerel Narrows, where she lived until the early 1950s, when she was killed after a tree that she was cutting fell on top of her. Madole was fortunate that C.R. Neely, the far-sighted banker, had put aside some of Madole's money for a time when the free-spending prospector was broke, and provided him with grubstake money for additional years in the bush. Unfortunately, when C.R. Neely resigned as the manager of the Bank of Commerce, his replacement was not at all sympathetic to "the drunken old trapper hitting him up for more money all the time. He blew his top and gave Dick all of his bonds and there then followed another quite impressive party until the last of the $60,000 was gone and Dick was finally broke."[9]

These early days of the company were a period of what could be generously termed ad hoc

planning. A mix of colourful characters, investors with an indomitable spirit of adventure, drama set against primitive living conditions in the bush, and vast untapped mineral resources, all combined to provide the basis for the newly-established company. Yet Sherritt Gordon was just starting out, had limited financial backing, and in many ways was rather brazen as it sought out to establish itself in such challenging conditions. Despite his relative inexperience and youth, Brown was the model of self-confidence, however, never doubting for a moment that Sherritt Gordon would develop to its full potential--and he managed to win over other employees with this infectious zeal. In an interview in October 1996, another key figure in the company's history, Alan 'Doc' Gallie, emphasized the charismatic leadership of Brown, whose vision for the company never faltered: "I never worked for Sherritt Gordon: I worked for Brownie."[10]

The Sherridon Era, 1927-1951

Mining is always a difficult industry, with the vagaries of the market proving a major challenge to overcome. For a relatively small operation like this Sherritt project, the financial support was often a major problem, and the operation faced several financial (and emotional) peaks and valleys. With limited financial backing, and the effect of the Great Depression soon to fall with full force upon the fledgling operation, it was hardly a healthy time to invest in an uncertain mining project--despite Brown's unbounded enthusiasm and claims to the contrary. Fortunately for him the company geologists anticipated that there were some five million tons of copper zinc ore at the site, and this was enough to convince the financial backers to invest further in the project. Work on the mine started in 1927, and throughout the winter of 1927-28 equipment was hauled over a crude winter road that was set up with some difficulty. Soon afterwards, drilling began in earnest, with

two main shafts being sunk.

The mining operation was typical of many others in Canada. Everything hinged upon two key variables--sufficient deposits being mined, and solid market prices for the minerals. Initial findings were disappointing, though, for they revealed that ore deposits were not as great as had been expected: the east orebody, for example, with an overall length of some 5,000 feet, had only a maximum depth of 250 feet. The western orebody, fortunately, was more promising--about 6000 feet long and 1000 feet deep. It soon became obvious that the mine was indeed a viable concern--and it became time to expand infrastructure there. Some supplies were brought along a makeshift road hacked out of the bush from mile 55 on the Hudson Bay line, and a development shaft was sunk on the west orebody. Crosscuts to ore allowed sampling and the mining of ore, which was processed in a nearby pilot mill.

By the end of the first year's work, sufficient tonnage of ore resulted to justify the full production of the property, as well as the extension of the railway needed to transport the minerals. In all, some 42 miles of railroad from Cranberry, together with a 40-mile power line, were built, along with a concentrator producing 1,500 tons of material per day. The mine was finally up and running--although it would soon come to depend upon market forces over which it had absolutely no control. As was the case with so many small Canadian mining towns of the era, the "boom-and-bust" cycle was about to begin.

For Eldon Brown, the initial decision to put the mine into production was really more an act of faith than anything else--but one that soon developed into a tangible, and indeed profitable, operation. But a mine needs more than facilities to work the orebody, for there are usually scores of people working there--and they have to be housed and fed. In tandem with the growth in mining

activity came the development of the camp site. It was decided to name the town that was subsequently built Sherridon, after the two pioneers responsible for its discovery, Sherlett and Sherritt.

Unfortunately plans to expand this settlement soon came crashing down. The collapse of the stock market in October 1929 put paid for some time to the efforts of the Sherritt mine, and it was subsequently mothballed until brighter times. Mining history is full of rich strikes and brusque financial crashes, and the Sherridon operation was no exception. The world economy was on the skids, and the impact was also felt here in northern Manitoba. Everything came grinding to a halt--simply because it was not cost-effective to continue mining at that time. An attempt was made in April 1930 to refinance the operation, but fell short of needed capital to complete mine development and plant construction by about a million dollars, and so both were stopped. Sherridon was put on ice, to await more favourable financial climes. A skeleton workforce remained at the site to look after the equipment, while everybody else's life was dislocated, and--as so often happened with miners--the company's employees scattered on the four winds.

Limited production started up in April 1931, and tonnage of material treated gradually increased from less than 500 tons per day to more than 1,000 tons--although only one of the three mill units was used. Production continued until June 1932, when the price of copper dropped below 6 cents per pound, and the operation was no longer commercially feasible. Once again market forces put paid to any attempt to develop the mine. To place this in the proper context, at the time of the shutdown of the mine, the price of copper on the international market had fallen even further--to just 4.7 cents per pound. It was estimated at the time that it actually cost 5.6 cents to produce a pound of copper, clearly not a favourable situation for the investors. Despite Eldon Brown's unswerving

optimism and faith in the project, Sherridon's future looked rather grim, and so once again the mine was mothballed. Almost all the mine employees--including Brown--left to look for employment elsewhere.

While the financial situation had generally improved during the 1930s, the inconsistencies of the mining industry (and ultimately of international market prices over which the miners had no control) meant that there were still problems facing the fledgling mine. Between 1932 and 1937, for example, mining operations once again closed down at Sherridon as the price of metals plunged on world markets. It was yet again a time to pull up stakes and start elsewhere--both for miners and management. In all there only remained in town some 14 men and their families, retained by the company to look after the mine and equipment. Of those who stayed, pay conditions were poor indeed--the few remaining employees worked half-time, in order to spread the work around. They were paid only $50 per month in 1932, and this was increased to $100 by 1936. To supplement these wages, however, they did receive free housing and food from the company. Lean times had once again returned to Sherritt Gordon Mines, which waited until the prices of minerals started to rise again.

Documents from the time indicate that, despite the rather precarious financial aspects of the mine, there was nevertheless a confidence among the principals on the mine site that Sherridon would survive and indeed eventually flourish. With the prices for minerals rebounding in the mid-1930s, and an energetic group of young, daring managers at the site, the conditions for them to "make a go of it" slowly fell into place. In 1930 the Sherridon Development Company (a subsidiary of the mining company) was formed to organize and construct appropriate housing for Sherritt Gordon employees, and at its mining peak there were some 1,500 people living in Sherridon. The

founding of the Sherridon Development Community was more an act of faith more than anything else, since plans for the mine had already been mothballed, and the impact of the Depression was rapidly being felt. The financial picture was clearly far from healthy.

Yet the company ploughed ahead, running a communal drugstore, and meat market when there was nobody interested in setting up shop for themselves. Houses were built by the company for employees, and in some cases money was loaned to allow them to build their own homes--all based upon expectations of happier economic times arriving. In addition there were private interests in Sherridon that operated the hotel and most stores in town, waiting for better times to return. As is the case in so many similar mining communities, faith and optimism were almost as important as the decisions taken in major financial centres to the south. As the town's fortunes eventually began to turn, Brown approached C.R. Neely, the former banker who had subsequently become mayor of The Pas from 1932 to 1937, and he agreed to become Town Manager in Sherridon. The late 1930s were a time of solid growth, and by 1938 there were 449 employees at the mine. Once again the good times had returned.

Interviews with old-time residents from this period reveal that, despite financial uncertainties, life in Sherridon was in fact both simple and enjoyable. Fishing and boating on the surrounding lakes were popular. Eldon Brown was even credited with clearing a 9-hole golf course not too far away, although accounts of the many outcropping rocks and innumerable varieties of flies make one wonder whether it was worth venturing into the bush to play. The long winter of course proved an incentive for the town's inhabitants to stay indoors as much as possible and indulge their artistic interests--plays were put on, a band was formed, and there were frequent dances. Paydays and weekends were "robust," as one former executive who lived there for many years noted, but the one

town constable did not have too much to worry about. When the mine was re-activated in 1937, and the population again swelled, social life picked up with bridge parties, weekly dances, amateur variety shows, curling, and even bowling being available for the community. It is important to stress that Sherridon was indeed a real community, a small company town where social classes meant little and the gulf between management and other workers was small indeed, since all worked, and played, together. Eldon Brown, for instance played in local baseball games alongside workers from the mine, and employees and management saw each other daily in work and social functions. This aspect of the company culture was extremely important, laying the foundations for a management-labour relationship that is the envy of many other companies of a similar size.

Things continued to improve during this decade. In 1938 a town hospital was opened, run by Dr. Archie McGregor, who stayed in Sherridon until 1951, when the mine finally closed, and he moved to Fort Saskatchewan to run the clinic there. All medical care for employees and their family members was provided by the company. Former Secretary of the company Gordon MacKay noted that in retrospect, for many longtime Sherritt Gordon employees, these were the "happiest years of our lives,"[11] with a great sense of camaraderie and mutual support.

1936 was a key year for the company, as preparations were made to take the mine out of mothballs and start work again. Many who had previously worked in Sherridon returned to town, including Eldon Brown (now appointed General Manager), and production began once again in August 1937, continuing this time until the ore bodies were completely exhausted in September of 1951. In all, some 8.5 million tons of ore were mined, with a total value of production of some $58 million. During this period new houses were now built, businesses moved back, and Sherridon slowly rumbled back to life. The importance of C.R. Neely, the banker from The Pas who had been

so instrumental in putting the initial Sherritt Gordon deal together, and now continued his association as Town Manager should be emphasized--for it symbolized the continuation of the company history. Once again it was because of Brown's initiative, since he had strongly supported his appointment.

It was clear that, after several years of being shut down, a fair amount of work had to be carried out in the mine to press it back into service. Further research revealed other areas of concentrated mineral deposits, and so the existing mine was enlarged: the No. 3 shaft was deepened to an inclined depth of 1,127 feet, while stations for the 6th and 7th levels in the mine were also cut. Once additional power was made available on August 1, 1937, production was restarted. A new phase of work had begun, with all in Sherridon hoping that this time work would last a little longer.

In all there were some 401 employees on the payroll by 1938 (449 by the end of the year when the seven-day week was replaced by a 6-day one). Once again the vagaries of the market set the tone for the industry, which either thrived or failed according to the basic laws of supply and demand. It was (and is) hardly a profession for the faint-hearted. Average earnings for all employees was some $155 per month, a good wage at the time. Between 1937 and 1951, Sherridon would continue to thrive as a community--until once again cheaper resources were found some 120 miles north of town at Lynn Lake, and mining operations moved there. The fate of company towns in the mining sector in Canada has been plagued with historical ups and downs, and Sherridon was clearly no exception.

Aware of the steady depletion of the ore, as early as 1938 Eldon Brown had started the search for a new mine. It was clear that the orebody at Sherridon would not last forever, and so prospectors were sent out several times yearly to an area some 100-150 miles north of Sherridon, scouting for other mineral deposits to replace the dwindling stocks at Sherridon. Between 1928 and 1932 several

larger companies had prospected this area, but they had found nothing of value and the area had been largely written off. Brown, however, was convinced that they had overlooked the region's potential, and eventually his persistence would pay off. That said, it is important to note that for several years the company had carried out prospecting and diamond drilling in the Granville Lake area, at Lasthope Lake, McVeigh lake, Cartwright Lake and Bob Lake. In other words, the company engaged in ten years of extensive exploration work before it finally discovered the rich Lynn Lake deposits. Extensive exploration (at high cost), and an impressive number of failed prospecting efforts thus occurred before Lynn Lake was discovered--as is often the case in mining.

There was also a spectacular failure in an iron mine venture, which illustrates again just how unpredictable the mining business was. In 1941 Sherritt, together with Frobisher Explorations Company, formed Michipicoten Iron Mines Limited, working at a site known as the Josephine Mine in the Michipicoten area north of Sault St. Marie in Ontario. A shaft was sunk in 1942, and an extensive iron deposit was located. Sherritt Gordon was seeking at this time to diversify--in much the same way as the company has done in Cuba some six decades later. At first things looked promising. Production started in October 1945, with the goal of producing 375,000 gross tons of ore per year, but in October the following year, there was a massive cave-in at the mine, the result of major underwater activity at the site. The mine was abandoned, and flooded--and Sherritt Gordon decided to focus all its attention on the Lynn Lake deposits. It taught the company an expensive lesson on the precarious nature of the mining business.

The war years brought mixed blessings for Sherritt Gordon. On the one hand the guaranteed need for minerals to assist the war effort meant steady copper prices and a large market among Allied countries. At the same time there was a great flux in the number of employees. During the

period 1939-45, for instance, some 300 company employees joined the Canadian armed forces. Indeed, with this large turnover of staff, it is to Sherritt's credit that the company remained as productive as it did. One of the secrets behind the success of Sherritt during these formative years was the company's management.

Among these Alan E. ("Doc") Gallie stands out. His nickname is derived from his father, a famous surgeon and the Dean of Medicine at the University of Toronto. A mining engineer who joined Sherritt Gordon in 1938, Gallie remained with the company until his retirement some forty years later, and as he noted to the author in 1997, "never regretted a day of work."[12] His first placement was in Sherridon, although he was moved around to various sites in which the company was interested--including a brief stint as superintendent at the ill-fated iron mine. Indeed, following his marriage in the fall of 1939, he and his bride Mary Frances Mitchell--who acted as his assistant, surveyor's assistant and radio operator--lived in ten different homes (most of which were canvas tents) during the first four years of their married life. Eventually "Doc" Gallie became Vice-President for Marketing, and in many ways was the quintessential Sherritt manager.

Also extremely important in this stage of its development was Gordon MacKay, who--like Gallie--joined the company in Sherridon and stayed working with it until his retirement several decades later. Both Gallie and MacKay (who was Executive Vice-President when he retired), brought the spirit of those early days in Sherridon to the larger corporation as it grew throughout the 1970s. "Company men" through and through, they developed a spirit of dedication and interest to their labours for several decades--and are still revered today. There are few mining companies of the size of Sherritt which were able to retain such a large core of talented managers, and this shared experience of the small company town continued to influence their identification with the large

multinational corporation several decades later.

One of the things that surprises labour- or business historians who examine the Sherritt case history is the long history of labour-management cooperation. The archives of Sherritt show that, unlike other companies of a similar size, there has never been a tradition of labour strife. Indeed, there was only ever one strike at the company, a remarkable record indeed. (In the summer of 1996, when researching the project, the author met with Gord Hostyn, a long-time president of the union in Fort Saskatchewan, who noted that this was to a large degree because everybody pitched in together, both at work and in the--small-- community). Veterans such as "Doc" Gallie and Gordon MacKay, when asked about this anomaly, downplayed their own role in management in explaining this phenomenon. Instead they pointed to the very nature of the company as a community-based industry. Sherridon was such a closed community, where everybody knew everybody else, that the idea of tension or industrial action was virtually unknown, and indeed impractical. Members of the company--whether administrators or miners--saw each other every day, at work and in the community. As a result, in order to maintain the social peace, it was important to practice a form of cooperative, hands-on management that was also fair, and for this approach to be transparent. (This philosophy, much to many people's surprise, has largely continued to this day in the large refinery at Fort Saskatchewan. Indeed, in the nearly half of a century that the plant has been in existence, there has not been a single strike--an extraordinary development for a company of its size, especially one based on the notoriously unstable mining industry).

Yet in 1944 Sherritt Gordon did find itself mired in a messy labour dispute, with the mine workers solidly pitted against management. It was the one time in the company's history when goodwill went out the window, and severe industrial action resulted. To no small degree the dispute

was due to a paternalistic approach by the administration, which believed strongly that its manner of handling potential problems directly with individual workers was more appropriate for a company town. They were therefore philosophically opposed to the idea of a trade union--any trade union--representing the mine workers. For the management team, all problems were to be resolved as they always had been at Sherridon, with both sides talking out issues--and not through any body representing organized workers. (Speaking some four decades later, Gordon MacKay a former company executive noted that management should probably have been more flexible in accepting the need for a union. He also admitted that there was a strong streak of paternalism in the management style, which in turn led to a profoundly ingrained resistance to union inroads. Because there had been such a family-like atmosphere at Sherridon since the mine had been built, the idea of a potential confrontational union vs. management relationship was anathema to management). On the other hand there was a nucleus of miners who believed that it was a fundamental principle to have the right to be represented by a trade union, and they were determined to organize the workers, and protect those rights. Clearly both sides were set on a collision course, one that would have a major impact upon a small town like Sherridon.

Prior to August 1944 there had not been any kind of union in Sherridon, and the management felt strongly that there was no need for one at all. Until then the Employees' Representative Committee had met monthly with management to discuss grievances and seek a resolution to any ongoing difficulties. This process had worked for many years, but in the mid-1940s there was a general feeling among many miners that this old-fashioned, rather informal, approach was no longer appropriate. In the end, in August of 1944, a collective bargaining agreement was negotiated with Local 695 of the International Union of Mine, Mill, and Smelter Workers, the certified agent of the

employees. The agreement came into effect on October 1, 1944, when the management was reluctantly forced to accept that a new stage had come in the mine's development. Matters came to a head three years later, however, when the union demanded a significant pay increase. The company refused to grant this, and a three-month strike (from August 13 to November 19) ensued. Sherritt Gordon added to the tension when its request to the Manitoba courts for an injunction restraining picketing on company property was granted--and the battle lines were drawn. The company only agreed to re-open the collective agreement once the workforce returned to the mine, something which in fact occurred several months later.

The damage had been done, however, in the sense that relations had soured between some managers and workers, and indeed even within families the strike had a very divisive effect, with members pitted against each other. In a town the size of Sherridon, it would take years before all the political fences could be repaired. One factor which facilitated this process was the eventual fate of the original union, wich was later criticized for not reflecting accurately the workers' objectives. In fact, displeasure with the union among its members led to it being replaced in October 1948 by other workers who formed their own union to better represent their interests--the Sherritt Base Metal Workers' Union, Local 287 (an affiliate of the A.F. of L.). The labour peace that has resulted for the next five decades would appear to indicate that important lessons had been learned by both sides. (Ironically, the company probably benefited from the strike, since while it was not paying wages the price of copper almost tripled during this period. This was because just at the end of the strike, war restrictions on the price of copper were removed. The copper in the ore not mined during the three-month strike was then sold at the new, significantly higher, price).

As was the case when the mine site was discovered, the most important figure in the

evolution of Sherritt during this formative period was undoubtedly Eldon Brown, the very first employee of Sherritt when he had been hired as Mine Superintendent. Several Sherritt employees who worked with him over the years speak with reverence of Brown's contribution to the operation. His faith in his employees and colleagues was renowned,[13] and he also possessed tremendous vision for the future of the company. He thrived on challenges, possessed an innovative approach to problem-solving, and was an eternal optimist. "Sherritt Gordon had many branches," one former executive noted in an interview in late 1996, "but it grew from a single acorn--and that was Brownie."[14] A bold pioneer, an accomplished mining engineer, and a consistently supportive colleague, Brown provided a solid basis for the company's growth.

By 1937 he had become concerned that the ore supply at Sherridon would soon run out. That year he initiated a campaign of prospecting for alternative feed stocks, and in September 1941 one of the most talented of the prospectors hired by the company, Austin McVeigh, made a discovery of a nickel-copper outcrop at Lynn Lake, some 120 miles to the north of Sherridon. McVeigh had initially noticed some rust stains on a small outcrop about half a mile north of a small lake (named Lynn Lake after Lynn Smith, the company's chief engineer). He stripped the moss off the rock surface, and found a showing of nickel and copper. It was to prove the salvation of the company, since in 1951 the last ore would be extracted from the mine at Sherridon. By the time that mining there ceased, it had proved an extremely profitable operation, having yielded almost $59 million worth of metal. Yet when it closed, there was simply no more metal left to mine--hence the importance of McVeigh's discovery. To put this in context, had the deposits at Lynn Lake not been located by him, the company would have faced total disaster--literally it would have become a mining company without a mine.

In the company's 1951 annual report, Brown noted the erratic growth in the company's fortunes during the Sherridon era (1927-1951). In essence, the timing of Sherritt Gordon's growth had largely been out of synch with the growth of metal prices at key stages in the company's operations. When production had been at its peak, the prices on the world market had been in the doldrums: "The mine reached the production stage coincidental with the worst price slump in the history of copper, which forced a five-year shutdown." To make matters worse, the advent of World War II brought a steady market for copper, but the prices were frozen during the war years by the Canadian government. And, "by the time controls were lifted in 1947 and metal prices were allowed to find their own level, the bulk of our ore had been mined out and the rate of production had been substantially reduced."[15] Put more simply, some 77% of the total net earnings of the company came from the last 22% of the total tonnage milled between 1947 and 1951. Faced with these adverse circumstances, Sherritt Gordon had used a variety of approaches, seeking to balance profits with social commitments. It had been reasonably successful, but had not realized its financial potential, largely because of circumstances beyond its control. True, Sherritt Gordon at the time was a respected company, but it was dwarfed by many other Canadian companies blessed with better timing--and more luck.

It was clearly now time for a change, if the company were to survive. An extensive drilling programme in 1946 and 1947 had shown that there was clearly sufficient ore to warrant production at Lynn Lake, since five orebodies--identified as "A," "B," "C," "E" and EL"--had been located. In particular "EL," with a high grade ore, proved the viability of the mine site. 1951 saw a flurry of activity, as the Sherridon Era wound down (production ceased in September), while the focus of company energy moved to Lynn Lake. There the first of two shafts was completed, the townsite of

Lynn Lake was surveyed, and construction on the Laurie River dam (to provide the new mine with power) was started, while another storage dam at Eager Lake was built. Meanwhile the Canadian National railroad to Lynn Lake (completed in November 1953) was begun. For the next generation, the company's future was now tied up with mineral supplies elsewhere: it was now time to move, lock stock and barrel.

The Lynn Lake Era, 1953-1976

Eldon Brown was the consummate Sherritt Gordon employee: mining engineer and mine superintendent, later President and Managing Director, and Chairman of the Board of Sherritt Gordon Mines Limited. Throughout his long career with the company he revealed himself to be always thinking at least one step ahead of the challenges facing the company The discovery of ore at Lynn Lake in 1941 provides one such example of this approach--and may well have been one of his most important executive decisions, since without the staking at Lynn Lake the company would indeed have been in dire straits. Certainly it kept the company financially afloat, at a time when disaster loomed and the ore ran out at Sherridon.

The discovery in September 1941 of fresh orestock by Austin McVeigh just half a mile from Lynn Lake brought fresh hope to the company. (The mine is situated some 650 miles north of Winnipeg and 60 miles from the Manitoba-Saskatchewan border). This area as Alan Gallie would note later "is typical of most of the northern Manitoba section of the Pre-Cambrian shield--a peneplain with low relief, almost entirely covered with muskeg, sand plains, and lakes. Muskeg areas are always underlain by permafrost."[16] McVeigh sent samples to Sherridon to have them assayed for gold and copper,[17] but Brown--acting on a hunch--also had them checked for nickel. The

results of the analysis showed 1.5% nickel and 1% copper, a significant grade, provided that large enough ore supplies could be found. The surrounding muskegs left plenty of room for other hidden orebodies, a fact not lost upon Brown. Because this discovery had been made in the midst of the War years, however, Sherritt Gordon could not spare employees or equipment to investigate properly the value of this finding. It was therefore decided to pull the moss back over the showing, to be certain it remained a secret until the end of the war in 1945. At that time news of the discovery finally leaked out, sparking a stampede to stake surrounding land. For four years the company had sat on this discovery, keen to exploit it because of its potential, but unable to do so. Speaking in 1947, Eldon Brown noted that "the safest thing to do was to keep quiet about the discovery and to postpone further work in that immediate area until such time as better airplane service was available. We were afraid that if we started work around the discovery we might attract attention to the area and have other companies, who were better provided with airplane transportation facilities, moving in on us."[18]

Planning as to how to proceed following the initial discovery represented a major challenge for Sherritt Gordon. It was far more complicated than would at first appear, and McVeigh spent most of 1943 and 1944 prospecting the area. This had to be done in difficult conditions, because of the long winter, and low wet ground. He located a strong magnetic anomaly under Ralph Lake (west of Lynn), and three weak and irregular anomalies at Lynn Lake, indicating the possible presence of orebodies. Because all of these were in wet low ground, they could only be investigated by diamond drilling, an expensive process. Nevertheless, on the basis of the solid samples that had been analyzed, it was decided to push ahead with this project, and throughout 1945 claims were staked in the area. It was time to see just how solid the orebodies were.

This area had been prospected by larger mining companies several years earlier, but because the results had been mediocre or inconclusive at best, it had been discarded as a site that was not economically viable. Austin McVeigh had noted, however, a weak magnetic anomaly, and decided that there were probably deposits of copper and nickel in the vicinity--the question was whether these were large enough to warrant the expense of further exploration. In early September drilling started at Lynn Lake, with three areas being targeted. A large diamond drill was dragged by hand across four miles of swamp and bush. The first hole was drilled some 470 feet at an angle of 45% under a promising magnetic anomaly. When little of value was found, a second hole was drilled five hundred feet to the north--and this also failed. At this point Brown came to the site, and since "freeze up" was due any day, he moved the drill to the highest magnetic reading, and drilled a vertical hole. This third hole, drilled vertically to a depth of 445 feet over the anomaly, was made--and showed some promise, cutting eighty-four feet of excellent ore directly underneath. This orebody was known as the "Upper A." Later research revealed that the first two holes passed close by the fault separating two orebodies--and so it was only with luck that the actual orebody was found. Put more simply, if the drill had been directed at a different angle, it was quite possible that no evidence of viable mineral deposits would have been found. Winter arrived soon afterwards, or "freeze up" as it is known in the business--which meant that all drilling had to stop for several months. Austin McVeigh remained on the site with a work crew, staking further claims, and building log cabins for the following year's drilling, but no further testing could be done until spring.

Word soon leaked out in the mining community that nickel had been found, and as soon as the weather improved, prospectors rushed to Sherridon and Flin Flon, seeking a piece of the mining action. By early 1946 staking was complete, with Sherritt Gordon having staked 344 claims in an

area roughly 10 miles long and 2 to 3 miles wide. Their claims were soon surrounded by those of rivals in the mining business. It was a time of expansion in the industry, particularly because many miners were now back from the War, and mining exploration, which had been ignored for long enough, was seen as a profession with great potential. Economic growth and a sense of national self-confidence were once again in the air since the War had ended--and the Canadian north was no exception. Many of the Sherritt veterans returned to Sherridon, and were soon sent to the new camp as diamond drillers.

The importance of the switch in concentration from copper to nickel was an important one for the company. The use of nickel had been increasing significantly since the end of World War I (when it had been used primarily in armaments), and after the end of World War II was used in corrosion-resistant alloys. The advent of stainless-steel products of course meant that the market was able to expand remarkably quickly, particularly in the United States. In 1929, for example, some 90 million pounds of nickel were consumed in the United States (approximately 140 for the world), whereas by 1946-49, the average use had increased to some 160 million pounds (some 280 million in the world). There was thus a large market in North America for Sherritt Gordon's nickel supply.

The image given by Hollywood movies is that prospecting and drilling are straightforward activities--while reality is often quite different. John Wayne or Humphrey Bogart might indeed be able to make their fortunes in a 90-minute movie, but in real life it can take years of gruelling effort before it can be determined if a mine is really commercially viable: this was certainly the case with Lynn Lake. Many things are needed before a mine can be put into production: months and often years of analysis and research, the drilling of many holes, as well as cooperative weather, some guesswork and a solid dose of luck are all required to ascertain the approximate value of a potential

ore site, and even then results can be disappointing. By most standards the Lynn Lake exploration was a successful operation--but even then it took several years of hard work. In nearby Ralph Lake staking was also started on June 20, 1945 and in all some 28 claims were staked--yet the main focus, and the greatest potential, was at Lynn.

The Sherritt Gordon camp at Lynn Lake was of course carved out of the bush. Apart from rock outcrops, trees and muskeg, there was absolutely nothing in the area staked by McVeigh. Indeed it was also over 120 miles away from Sherridon, itself considered by many as being in the bush, far removed from "civilization." Air transportation was possible, but the planes were small, equipped to land on the lake, and of course their size limited the weight of what could be transported. Given the extension of the potential mining operation, it was clear that a sizeable workforce would be needed at Lynn Lake, and that a great deal of accommodation would be required.[19] This was no easy feat, given the company's finances, and the fact that it was emerging from a comparative slump--but it was badly needed if the Lynn Lake deposits were to be properly exploited. Work conditions were primitive--two long shifts of gruelling work per day. Plant manager Charlie Hames has described the daily routine well: "When one shift finished work, washed and had dinner, they woke up the other. These men, wakened by a blast of freezing air as the door opened, rolled up their eiderdowns and went to work. The first crew rolled down their eiderdowns over the frozen logs and went to sleep."[20] A dramatically new chapter in the company's history was about to begin--with a fresh major challenge awaiting Eldon Brown and his miners.

To meet this need and in order to bring equipment and supplies from Sherridon, a tractor road--some 165 miles long--was cut through the bush from Sherridon to Lynn Lake during the 1945-46 winter. This crossed the low, flat muskeg areas, and wherever possible connected with nearby

lakes. The objective of the road was quite simply to transport anything that could be moved from Sherridon to Lynn Lake. The plans drawn up to move the entire mining operation were extraordinary. One has to imagine the extent of the challenge that this decision offered, for what Brown was recommending was to move everything--virtually the entire town of Sherridon, and to a place where there were absolutely no facilities. Thousands of pieces of machinery and buildings were numbered, catalogued, and then shipped to the "farm" (Lynn Lake), where they were stored prior to construction and reassembly.

This was an extraordinary engineering feat, one that had to deal with an inhospitable terrain, difficult weather conditions, a complete lack of roads of any description, and a substantial distance. Along this route came a number of prefabricated camp buildings (approximately 12 feet wide and 28 feet long), as well as heavy drilling equipment and supplies. The town's buildings were packed with supplies, and when emptied became bunkhouses, houses, offices, etc. It was indeed an exceptional logistical achievement. [21] It was also dangerous, and in fact on two occasions men lost their lives when their tractors plunged through the ice.

The physical removal of the town of Sherridon to Lynn Lake was clearly a major challenge. Eldon Brown, talking about the plans to move everything that could be transported, was reputed to have noted in typically confident style: "Sherridon is one mining town that won't end up as a ghost town. We'll take the ghost along with us." The actual move started during the winter of 1945-46, when the lakes were frozen, thus allowing the tractors to cross the ice. Each winter saw further shipments of goods northwards until the railroad was completed in the fall of 1953. This winter freighting by tractors and trailers was quite a successful operation, although it was also a logistical nightmare. When one thinks about building a road or rail track through the bush, the idea of skirting

lakes usually comes to mind. Just the opposite was true in the move to Lynn Lake. The actual road was 165 miles long, following all possible lakes (since it was easier to cross frozen lakes than cut through the bush), as well as the least challenging portages. When the Canadian National Railway finished the line to Lynn Lake in 1953, they followed a similar approach, except over a land route. A detailed map shows the dozens of lakes in the region--which, when frozen, greatly assisted the transportation of goods and people between the two communities.

Late in the fall, after the lakes had frozen, snowmobiles were sent to pack the snow along the "road" to let the frost penetrate deeper. When the ice was about two feet thick, work started in earnest to fill holes and ready it for the move. Generally by the beginning of January when the ice reached the desired thickness of four feet, the transportation over the lakes could begin. The usual season for this form of transportation in northern Manitoba was short--from the beginning of January to mid-March, but if "freeze up" started early then the freighting season was of course longer. In February 1946 the first tractor train arrived at Lynn Lake. The amount of cargo transported increased each year, and when the decision was taken to move the Sherridon plant to Lynn Lake, some 12,000 tons of equipment and houses were moved in one season.

By the summer of 1946 a permanent camp had been established. In the winter of 1949-50, six houses from Sherridon were moved to Lynn Lake as an experiment. During the winter of 1951-52 (which coincided with the closing of the Sherritt mine) some 73 more homes were transported, as well as the main mining plant and concentrator. By the end of 1953 a staggering 40,000 tons (including 208 buildings, as well as the entire mining and milling plant, construction material, lumber, steel and cement) had been moved in this fashion. This included the local branch of the Canadian Bank of Commerce, post office, two churches, over 150 homes, a crushing plant,

concentrating plant, warehouse, supplies and shops. This was all hauled using 36 tractors and 200 sleighs operated by a crew of 150 men. It was no mean feat, taking some 40 hours to transport each load to Lynn Lake, with the return being about half that.

By the last season of the move, the actual house transportation had been refined substantially. All household goods were crated and left in the house at Sherridon. Then the family flew to Lynn Lake where they were put up in temporary accommodation until the house was "delivered." Back in Sherridon a crew loaded the house onto a sleigh, which was hauled to Lynn Lake. Once it arrived there it was put on blocks at the back of the designated lot, with a skirt set around the blocks to provide some insulation. Usually it took some ten days for the family to move back into its home. Then in the summer the basements were dug and the houses moved onto them. Apart from some of the largest houses in Sherridon, the entire town was moved in this way. It was imaginative--and it worked. The Sherritt archives show that the record for the shortest move was provided by the Leonard house. The family ate breakfast on a Monday morning, after which time the loading crew arrived. The Leonards left with their suitcases, and by the following Thursday were settled in the same house in Lynn Lake.

This physical removal of an entire town was quite a feat. In an address to the Empire Club in 1954, 'Doc' Gallie expressed eloquently his feelings at this simple but effective technology: "No matter how many swings I saw, I always got a tremendous thrill out of watching the next one. There is something great and wonderful about the men and their machines as they appear out of the night, covered with snow, grinding, swaying and crawling across the portages or guided by the tree markers, travelling wide open at 4 miles per hour on a vast plain of a lake. On arrival at Lynn, the loads would be dropped, empties coupled on and in two hours were away again."[22]

It was not an easy life in the new community. The country was infested with black flies and mosquitos in the summer. The weather was also frigid for almost six months of the year, and until the paved roads in the community were built, residents had to fight their way through mud and sand when the snow thawed in the spring. Because of the limited summer and early winter, gardening presented a number of challenges for the inhabitants. Speaking in February 1959, 'Doc' Gallie provided the strategy followed by interested gardeners: "Plant around the 10th of June and hope until July 1st. Start to pray again in late August and if you can get them by the first frost you sometimes make it through to September 20th. However, everything grows fast because of the long days."[23]

Perhaps the most important piece of equipment in the buildings was the stove--which had to be consistently tended--and which could make the difference between life and death in the height of the winter. In addition, because most of the wood was green, it often had to be dried in the oven before it could be used.

On two occasions each year, for at least three weeks, the community was completely isolated during freeze-up (November) and break-up (May): at this time nothing could get in or out of the camp. During the first period, the ice had to be thick enough for a dog team to cross, or a small plane (complete with skis) to land. At break-up, float-planes could only land when the ice had melted. As often happens in similar adverse conditions, people at the camp organized a betting pool to guess when the first float plane would land after this period.

Pioneer life it was indeed, and certainly not for the faint-hearted. A booklet prepared by the company in the late 1970s details well the nature of the challenges faced by the early inhabitants of these new communities: "Bears nosed around garbage on autumn nights, and timber wolves sent up their unearthly howls in winter; children were encouraged not to go off wandering into the bush by

themselves. Occasional herds of bewildered caribou would migrate through town providing a welcome change of diet in winter. When the caribou stopped coming, there were still plenty of ravens around to be made into 'black-turkey' pies."[24] Fortunately the community was extremely resourceful and self-reliant. A variety of activities were planned during the long winter months, much as had been the case in the "early days' in Sherridon. These ranged from amateur theatricals to cribbage and canasta tournaments. Former residents of Lynn Lake interviewed in 1996 and 1997 all reflected with nostalgia on life in the community, clearly possessing fond memories of this simple and rewarding lifestyle, freezeup and all.

The system of buying groceries was clearly very different from the practice "down south." There were no grocery stores in the camp, and food had to be bought once a year by the company. This continued until 1953, when the railway line to town was completed, and a more orthodox approach to groceries was possible. For the first years groceries had to be bought in bulk on just one occasion--giving a novel meaning to the term "one-stop shopping." Initially it was of course extremely difficult for families to estimate the amount of food required for an entire year, a problem in part resolved by families trading their surplus with others.

The process of obtaining food was straightforward. The family placed its order for a year's groceries with the company, which in turn ordered the food from a grocery wholesale firm in Winnipeg. The Company paid for all the orders, added 3 cents a pound for freight costs and billed the individual families on a monthly basis, to be paid off by the following November. Then in February a freight sleigh pulled up to each house, and a mountain of boxes, cartons, and drums would be carried into the house. Given the limited space (12 x 28 feet) of each house, great ingenuity was used in cramming the food into every nook and cranny. Fresh fruit, vegetables and

eggs were flown in when space was available, and the radio operators divided these equally among all families.

Each family consumed an average of 4,300 pounds of food for a family of four. The Company bought all the meat for the whole population: two and a half boxcar loads of boned meat, which was stored in a large company freezer. The freezer could only be used when there was a reliable source of electrical power, but in the winter this didn't matter since it was always so cold anyway. It was immense, but it had one basic drawback: "there was only the one door where the products could be retrieved. Therefore, what was next available was what everybody in camp got that week, the cookhouse and all the families in the town."[25] Variety of meat was not always guaranteed, since it was the luck of the draw--or rather, what was closest to the door, that got served. Charles Hames has provided us with a typical order of groceries for a family of four for this period: "19 dozen cans of fruit and juices; 20 dozen cans of assorted vegetables; 20 dozen cans of meats and fish; 13 dozen cans of soup; 300 lbs. of flour; 100 lbs. of white sugar; plus 50 lbs. of yellow and icing variety; 3 cases of coffee; a case of tea; 25 dozen cans of evaporated milk; 150 lbs. of butter and margarine; 10 lbs. of shortening, plus cooking oil and assorted cheeses. Also included would probably be 3 cases of fresh fruit; cereals; pickles; sauces; condiments of all kinds; rice; macaroni; 18 dozen assorted cookies and crackers; dried fruits and nuts; jelly powders; yeast; and such mundane items as toilet tissue; toothpaste; soaps and waxes; first aid items; and school supplies."[26]

The railroad to Lynn Lake was completed in November 1953, after which the price of food dropped substantially, since it could now be transported far more cheaply. The actual track is 144 miles long, and took just over two years to build. The countryside it crossed was extremely rugged, and in total there are 57 bridges, of which one--some 200 feet long--crosses the Churchill River.

And, while the railway certainly made life easier, there were always difficulties, with unforseen problems cropping up. The actual completion of the CN track is a case in point. This took place on November 9, two days later than had been planned, due to a blizzard that suddenly sprang up. The guests from Winnipeg who had been invited to see the last spike of the railway line (made of nickel and cast by Sherritt employees) being driven gathered for the flight to Lynn Lake, only to be sent back to their hotel when it was obvious that flying was impossible that day. Finally on the 8th, a five-coach private train set out. One of the participants remembers the celebration: "The 'Special' pulled in just after lunch. In the middle of the afternoon everybody assembled. The last rail was relaid and spiked down to the last but one spike. Donald Gordon [President of the CNR] was handed a fancy nickel-plated spiking hammer. The Sherritt nickel spike was placed in the hole and Donald flailed away. The third try did it. Then the mutilated and bent spike was withdrawn and presented to Donald Gordon and the Lynn Lake branch was complete."[27] Once again weather proved a dominant factor in the community's day-to-day activities.

It is important to bear in mind how quickly and efficiently this new town mushroomed--but at the same time just how difficult conditions were. It had been only in 1947 (following two years of constant drilling) when it was decided that there was indeed sufficient ore to justify production at Lynn Lake. Yet it was actually the 160th hole drilled that revealed what an impressive mineral find there was. The actual findings at the site were impressive--4.87% nickel and 1.71% copper, a very high grade indeed. In all some 2.5 million tons were contained in this body, known as the "EL" orebody: it was a bonanza, worth more than $100 million.

One should not lose sight of the many challenges involved in starting a new community from scratch. Following the exodus north to Lynn Lake a bustling community grew--and indeed on May

5, 1951 it was incorporated as a Local Government District. Sherritt Gordon assumed responsibility for all the town's infrastructure needs--schools, hospital, community centre, as well as roads, sewer, water and power. The provincial government appointed as the local Administrator the same C.R. Neely whose involvement, as noted earlier, dated as far back as business negotiations with Carl Sherritt, thereby again providing continuity with an earlier generation of company managers.

The company also had to provide a variety of services. Power was of course needed both for the community and the mine, and after much research it was decided to harness the Laurie River, some 45 miles south of the mine. Two concrete dams and two power houses were built, providing 14,000 H.P., as well as three upstream storage dams, a diversion dam and a 69,000 volt transmission line. In all, it cost Sherritt Gordon some $8.5 million, a not inconsiderable sum at the time. It also turned the (mining) company into the only privately owned hydro-electric power development in Manitoba. In addition, the company built and maintained an airfield, just a mile from town, and in 1955 Canadian Pacific began services three times weekly to Winnipeg. Lynn Lake grew out of nothing, much as Sherridon had. The $15 million rail line between Sherridon and Lynn Lake, completed in late 1953, obviously made life a lot more pleasant. In this way, in typical Canadian mining history lore, a bustling small town was carved out of the bush in just a few years.

Lynn Lake was incorporated as a town on May 5, 1951, and grew extremely quickly. By the end of 1956 there were 299 housing units, with a further 33 under construction. From mere dirt roads there were now 3.5 miles of roads in the town. A modern 12-room school was completed in 1956, as well as a 12-bed hospital, complete with dispensary, X-ray equipment and operating theatre. There were also a variety of entertainment facilities that had sprung up during the same period: a skating rink, a curling rink, and the Roxy Theatre. The list of businesses and

stores was also of interest, particularly since all had sprung up within two years. As one might expect, there was the Hudson's Bay Company outlet, as well as Beaver Lumber, and the Canadian Bank of Commerce, but there was also a barber shop, beauty parlour, a poolroom (with 8 tables), a hotel, a transportation company, two builders, a couple of plumbing and electrical contractors, a shoe repair store, a restaurant, two oil companies, and a taxi company (boasting 3 cabs!). From a handful of people in 1950, Lynn Lake had experienced rapid growth: increasing from 507 people in 1952 to 1,674 just five years, and some 2,000 in 1958 (of whom 600 worked at the mine).[28] An agreement was drawn up between Sherritt Gordon and the province of Manitoba, according to which the company was responsible for the capital costs of roads, water, sewer, power, schools, hospital and community centre. In addition the company agreed to contribute $120 per year for every employee living at Lynn Lake.

The previous decade had witnessed major changes in the company's business. The changes in the actual mining sector were in themselves quite dramatic: the last ore was crushed in Sherridon in September of 1951, with the first Lynn Lake ore being crushed in September 1953--in the same crusher house, following its relocation. Just two months later, on November 7, the first railcar of nickel concentrate was loaded for the Fort Saskatchewan refinery, where it was stored until refinery operations began in May of 1954. A useful analysis of the state of the mine after it was established is given by an address by 'Doc' Gallie in April 1958. Speaking in Winnipeg to the Canadian Mining Association he detailed the mining operations at Lynn Lake. Some seven to eight carloads of nickel concentrate and one of copper concentrate were being produced each day, with the nickel being shipped some 800 miles to the Fort Saskatchewan refinery, and the copper sent 2,000 miles to Noranda in northern Quebec. The costs of the

operation were substantial, with capital investment of some $30,948,000 by Sherritt Gordon, and annual production costs of $6,250,000.[29]

The Lynn Lake mine operated continuously from November 1953 until June 1976, when--as had been the case in Sherridon--the ore deposits were exhausted, and the company began another stage of its evolution. Once again, as the orebody was depleted, it was necessary to look further afield for fresh stocks to refine. Fortunately, exploration efforts during this period were successful in finding two copper/zinc mines. The Fox Mine, west of Lynn Lake came into production in 1970, while the Ruttan Mine, 80 miles south-east, started production in 1973. Both of these mines shipped concentrates via Lynn Lake.

All of the changes that had resulted could in many ways be seen as the natural evolution from one stage to another: the Sherridon mine led to the founding of the town, the discovery of fresh orestock near Lynn Lake resulted in the transfer there, and the increase in volume of ore, and the desire for value-added product made the construction of the large refinery at Fort Saskatchewan viable. Each of these developments also represented, however, daunting obstacles that needed to be overcome with ingenuity, steady planning, and the occasional leap of faith. It is not wrong to see this period of the Sherritt Gordon story as one based upon pioneering audacity, accompanied by good judgement--and some luck. Writing in 1955, Brown placed these challenges in the appropriate context: "It was just under nine years from the discovery of the first orebody at Lynn Lake on September 22nd, 1945, until the first shipment of nickel metal left Fort Saskatchewan on August 7th, 1954. At the time of the first discovery, the obstacles in the way of establishing a producing nickel mine at Lynn Lake appeared to be almost insuperable, and the idea of creating a third fully integrated Canadian nickel producer was little more than a dream."[30]

The Lynn Lake project itself represented many difficulties: the physical removal of plant and houses from Sherridon some 165 miles north over bush, and in difficult weather conditions; the need to establish a source of power for the mine and the community;[31] the extension of the railroad from Sherridon; the subsequent development of a metallurgical pilot plant in Ottawa to determine how to "scale up" earlier experiments; the setting up of a refining plant at Fort Saskatchewan; and the financing to pay for the company's erratic, if plucky, development. Each one of these constituted a series of major challenges for the company management--since even at this time it was still a rather small operation, far different from the competing interests of companies like Inco or Falconbridge.

These challenges were resolved in large part by the vision and the determination of Eldon Brown, for whom apparently no difficulty was insurmountable. Contemporaries refer to his boundless energy, spirit of initiative, and ability to command respect and loyalty from his colleagues, as his major strengths--all of which he needed to keep Sherritt Gordon developing. As noted, the geographical barriers to be overcome in themselves represented a major obstacle. Just as difficult, however, were the financial difficulties, for in order to finance this rather risky operation--which took several years to transfer from one town to another--there was understandably a major cashflow problem. Canadian banks were notably reluctant to lend to the company, and had it not been for fortunate family connections and Brown's unflagging energy, Sherritt Gordon might have failed on several occasions.

Meeting the Financial Challenges

It was soon obvious that the greatly enhanced operation badly needed an infusion of

capital. Until this point all the costs of developing the Lynn Lake mine had been covered by income from the Sherridon operation. At one stage this had proved financially viable--with profits from the Sherridon property being $1,617,000 (1947), $1,852,000 (1948), $1,614,000 (1949) and $1,607,000 (1950).[32] But with the mine virtually exhausted by 1950, it was then necessary to cobble together an alliance of Canadian government and corporate support, as well as U.S. financing--not an easy task. Unfortunately for Brown, Canadian capital was not interested in investing, and so he turned to the Newmont Mining Corporation of New York. The president of Newmont Canada was John Dryborough, Brown's brother-in-law, who supported the Sherritt Gordon proposal. Closer to home, Brown lobbied with great persistence in political and commercial circles, in 1951 convincing Donald Gordon, President of Canadian National Railways to invest $5 million in the railway between Sherridon and Lynn Lake, a large gamble indeed for the C.N.R. Former vice-president Gordon MacKay reflected on this achievement of Brown, noting that in essence he had convinced Gordon "to build a railroad from nowhere to nowhere."[33] He also persuaded the legendary C.D. Howe, Minister of Commerce and Industry, to match that investment. And finally he convinced Fred Searls Jr., President of the Newmont Mining Corporation to invest $11 million in the company's expansion. Increasingly Newmont became the principal financial backers of the company, a situation that would not change for over three decades. Indeed, when it sold its stake in Sherritt Gordon in 1987, it owned roughly one-third of all shares. Newmont had three members of its executive on the Sherritt board, and was soon a major influence on the Canadian company.

Writing in 1973, in a history of Newmont Mining Corporation, Robert H. Ramsey explains well the daring, and the vision of Eldon Brown. It was his leadership, "pursuing an

innovative metallurgical strategy, that turned Sherritt Gordon from a rather dubious prospect into a viable mining and metallurgical operation."[34] At this point it was clear that there was more than sufficient ore in Lynn Lake, but without a new, cheaper method of refining the actual metals from the ore, the mining operation was simply not financially viable. A new, more cost-effective method to refine the metal was badly needed, if the mine was to prove cost-effective, since without it the mine would be doomed. Brown was fortunate in being able to call upon the pioneering refining techniques of Professor Frank Forward of the University of British Columbia. His novel approach was able to recover metal by hydrometallurgy instead of the traditional smelting process. This proved to be the key to success, and Brown pinned the company's future on an adaptation of Forward's methodology. He believed strongly in the U.B.C. professor's techniques--but the question was: would he be able to convince U.S. and Canadian financiers to support it? Forward's approach clearly worked--but it had not been attempted on such large quantities of ore. Since significant capital was needed to put it to the test to see if it was in fact a viable possibility for the mine stock, a new challenge awaited Sherritt Gordon. The company was caught between on the one hand wanting to expand (and having both resources and a solid theoretical strategy developed by Forward), and on the other by insufficient financial resources, and a refining technique that had only been used in trial programmes. Yet again the company was prepared to pursue a leap of faith, and yet again too it badly needed some luck.

What Sherritt Gordon was attempting was a radically new approach to refining nickel concentrates--one that had not been employed other than in relatively small-scale experiments. On paper, the Forward process seemed cost-effective indeed--provided that the company could secure the financing to get it up and running. And, of course, provided that the small-scale

experiments could be amplified significantly to make the process viable.

The total estimated cost of the Lynn Lake project in 1951 was some $35 million, a not insignificant sum--and that did not include the housing and plant that was to be transferred from Sherridon, nor the $6 million in working capital and contingency funding that was required. To increase Eldon Brown's difficulties, it became clear in 1953 that the cost of the Fort Saskatchewan refinery, where the minerals were to be processed, would be significantly higher than had been originally anticipated. Indeed a revised estimate of the overall project came in at $46,799,00, more than a quarter over budget. It had been difficult to secure funding in the first place for the expansion. Now Brown faced even greater difficulties in securing extra financing from notably unenthusiastic financial backers.

This proved a major difficulty, however, since U.S. banks were not keen to pour more money into a venture about which they were not wholly convinced--especially one using untried metallurgical techniques. For their part, Canadian banks too remained noticeably disinterested in what they saw as a highly risky project. Yet with his usual persistence Brown did eventually manage to put together an alliance of bankers, governments, and industrialists, convincing the sceptics of the project. Of the approximately $47 million required, Brown noted for example that $11 million would be generated by earnings from the mine. Sherritt Gordon also issued shares (at $2.00) to raise a further $4 million, while it was expected that $5 million could probably be borrowed from the banks. That still left a whopping $27 million to be raised, of which $19 million in loans was arranged through a consortium of U.S. banks and insurance companies, headed by J.P. Morgan and Co. Finally Newmont bought $8 million in Sherritt Gordon convertible debentures, and in 1951 some 1,122,196 shares of previously unissued Sherritt

common. It looked as if the mining operations of Sherritt Gordon were once again stable--just.

Unfortunately for Sherritt Gordon this proved to be misplaced optimism, and cost overruns at the Fort Saskatchewan plant once again threatened to destroy Brown's ambitious plans. The Morgan Bank initially refused to invest a single cent more in the operation, thinking that they were merely throwing their money away. The Newmont Mining Corporation, which itself had invested heavily in Lake Lynn, then took it upon itself to lobby Morgan. They had invested so much in Sherritt Gordon already, and were afraid that if the badly needed funding was not provided, the business could fail. They were right in this analysis. Finally on March 4, 1954 a crucial hurdle was overcome--but only after some difficulty. There was a meeting in New York with a senior official of the J.P. Morgan enterprise at which the nervous American banker was told by an outspoken Brown that unless a further injection of financial support was forthcoming immediately, in just two days Sherritt Gordon would fail, and would then pass to J.P. Morgan to be sold off at a significant loss to the bank--which would then find itself in the nickel business.

Fortunately for Sherritt Gordon a convincing argument was made by Plato Malozemoff of Newmont that, despite the extra costs, the venture was still a viable operation. A bail-out arrangement was then patched together, according to which an advance of $5 million was provided by the General Services Administration in the United States against nickel to be produced from Sherritt's stockpile. Newmont agreed to purchase a further $1 million in debentures and $205,000 in bonds, while the Morgan Bank bought a further $2,795,000 of Sherritt bonds.[35] In all, contracts covering the company's entire nickel output (as well as 60% of its cobalt and copper) for fully the first five years of production were drawn up with the U.S.

government and four of the largest nickel consumers among American steel producers. Brown had once again defied the odds, and appeared to have overcome them, but in doing so he had mortgaged the company's future for the following five years.[36] It is of course ironic, in light of U.S. legislation in the mid-1990s to punish Sherritt International for its investments in nickel-mining in Cuba, that in large measure Sherritt's survival was underwritten by the U.S. government.

There were clearly significant ore deposits at Lynn Lake, and the potential for a large mining operation was readily apparent. This, in turn, however, led to a further challenge for Sherritt Gordon--how to refine such a large amount of material (since all of Forward's experiments to date had been on small amounts of feedstock). At that time there were no custom smelters which could turn ore concentrate into refined nickel. It was true that occasionally some of the larger operations would refine special orders for smaller mining outfits. This was done on a temporary basis, though, when the large refiner had surplus capacity. But what was needed to accommodate the significant Lynn Lake find was something far greater--and none of the large refiners had the capacity or the interest to comply with Sherritt Gordon's request. The logical question, therefore, was to decide whether the company could develop its own integrated operation that would produce refined nickel in sufficient amounts to turn them from a mining company to one that both mined **and** refined the minerals. Could the revolutionary process pioneered by Professor Frank Forward be the magical solution to these quandaries, or would its lack of large-scale application mean that it was doomed to failure? The company was clearly at another important crossroads in its history, and it was extremely unclear what the outcome of this process would be.

The challenge itself was simple: if Sherritt Gordon were to avoid the cyclical upheavals associated with the depletion of ore at its mines, it had to come up with new technology to refine feed in far larger quantities than had been done to date. This would lead to greater stability in the company's development, and would produce refined minerals worth significantly more than the earlier feed that it had traditionally mined, thereby making it a significant player in the Canadian mining industry. First, however, it had to come up with an innovative, financially viable, operation to meet this challenge. This in turn meant returning to the drawing board, strengthening the research component of the company, and developing a wholly new manner of refining--not an easy task. Yet Brown thrived on challenges. He believed completely in Forward's research, and was convinced that he had competent research staff. This challenge, he doggedly believed, could be met head on--and indeed had to be--if Sherritt were to advance.

It was a major gamble, since the company had no experience in this aspect of the business, and metallurgical research until this point had not been a principal concern. Yet at the same time there were few options, since the new mine would soon be producing massive amounts of ore--with nowhere to refine it. As a result, Sherritt Gordon started its refinery in 1954, both to refine its own concentrate and to provide refining facilities for smaller companies who were in the same situation that it had been in earlier. It should be remembered, though, that this was again a major gamble, since Sherritt Gordon had no experience in this area of the business, and had to learn fast if it were to both develop its refining process and deal with the mountains of ore rapidly building up--and indeed survive as a company. A new challenge awaited, one that was largely resolved by a group of dedicated scientists. This tradition of commitment to research at Sherritt--where emphasis on high quality innovative research has

always played a prominent role--will be analyzed in a later chapter.

In Synthesis...

This chapter has sought to provide an historical overview of the foundation of Sherritt Gordon, focussing on its first quarter-century. It is an extremely rich history, complete with a cast of eye-catching principals--from Carl Sherritt to Eldon Brown--that would do any Hollywood saga of the time proud. But it is also the story of a small mining company that steadily evolved from rather obscure origins to become a sizeable operator. One that refused to be afraid of daunting odds. It also offers an unusual glimpse at how northern communities were formed, literally carved out of the bush. (One should remember that the area around Lynn Lake was unexplored and unmapped as late as the 1920s). In many ways it is a typically Canadian story, illustrating an important chapter in the pioneer experience of North America.

It was clearly not an easy life, one that was fraught with many obstacles and challenges--in many ways parallelling those of the company. To a certain extent this story shows how the pioneer ethic in northern Canada did in fact beat the odds, a theme which could also be applied to Sherritt Gordon's evolution. Having established itself as a solid, mid-sized mining company by the early 1970s, there were now new challenges facing the company. The ore supplies from Lynn Lake were adequate for the new refinery at Fort Saskatchewan, but what would Sherritt Gordon do when these finite resources ran out? Also daunting was the need to develop the Fort Saskatchewan refinery to its full potential. It represented a wholly new stage in the company's development--and it was not going to be easy.

NOTES

1.Much of the historical research in this book is taken from two publications: "Enriching Earth's Riches," a 31-page booklet published (possibly in the late 1960s or early 1970s) by the company in Toronto, and the unpublished ms., "The Story of Sherritt," compiled by Charles Hames in December 1974. The latter in particular, written by a retired manager of the Fort Saskatchewan plant, is particularly informative and helpful.

2.C.R. Neely, "History of Sherridon: Address to School Students at Sherridon," November 19, 1946, Archives of Sherritt, Fort Saskatchewan, Alberta, p.2.

3.Work is required every year to hold the claims in good standing. Sherlett did not do so, and as a result his claims came open--at which time Sherritt restaked them.

4.Much of this information concerning C.W. Sherritt comes from the unpublished ms., "Sherritt Gordon Mines Limited," a series of vignettes dealing with influential historical figures in the company compiled by Charles Hames and written by Alan "Doc" Gallie, probably in the early 1980s. Gallie's help in the writing of this chapter has been most helpful, and the author acknowledges publicly his debt of gratitude to "Doc."

5.Ibid., p.9.

6.Ibid., pp. 15-16. The author notes that Sherritt was at this time on an island in Kississing lake, some 100 miles due north of The Pas. Today's maps have named it Sherritt Island.

7.Ibid., p. 17.

8.Letter from Alan "Doc" Gallie, to the author, November 12, 1996.

9.Ibid.

10.Interview with "Doc" Gallie in Toronto, October 28, 1996. Gallie's father had known Brown since the late-1920s. To illustrate the dogged perseverance of Brown he notes how in the winter of 1927 Brown had broken an elbow. It was not yet freezeup, however, so the mining engineer could not get out of the bush by traversing the many lakes in northern Manitoba. As a result, Brown had to wait for several weeks in considerable pain, before hiking some 100 miles to The Pas, and then travelling to Toronto, where

Gallie's father operated on the elbow.

11.Interview with Gordon MacKay in Toronto, August 20, 1996.

12.Interview with "Doc" Gallie in Toronto, October 28, 1996.

13.Former Vice-President Vladimir Maskiw noted with great respect the essence of Brown's style: "He gave you a real sense of responsibility, explaining his goals and then turning you loose. A man of great integrity and a determined builder, he let you know that he believed in you." Interview with Maskiw in Toronto, October 28, 1996.

14.Interview with Gordon MacKay in Toronto, August 20, 1996.

15.Cited in Hames, op. cit., p. 43. Brown continued: "The life of the Sherridon operations can be divided into two periods, the first period starting with production in 1931 and extending to the end of 1946, the last full year of controlled prices. The second period starts at the beginning of 1947, the year in which controls were lifted, and continues through to the end of production." Ibid.

16.Alan E. Gallie, "Sherritt Gordon Nickel Copper Mines," Mining Engineering, vol. 9, no. 3 (March 1957), p. 330.

17.In a speech in 1947, Brown recalled his first experiences with the site: "Just before freeze-up I went in with Austin to look over the discovery. The showing was only about six feet long and two feet wide, with bare rock all around it. The knoll on which it was located was about two hundred feet in diameter and was the only rock to be seen for a considerable distance in every direction." Eldon L. Brown in a speech on Lynn Lake (untitled) to the Manitoba Chamber of Mines, January 8, 1947.

18.Ibid.

19.In the Sherritt archives in Fort Saskatchewan, is a list of supplies requested from Eldon Brown by John Ferguson, an accountant at the Lynn Lake camp in 1946. Dated October 21, 1946, it requested food for one year. To give some idea of the extent of activity already taking place, there were apparently between 100 and 125 men working at the camp. The supplies reflect this. Among the pages of this "shopping list" were the following:
3,000 pounds of bacon side (the following figures all represent lb. dimensions)
pork: 600 tenderloins, 3,000 hams, 600 butts
beef: 3,000 butt, 2,000 tenderloins, 3,000 sirloin butt
lamb: 1,000 leg roll, 200 loins
veal: 1,000 veal roll, 200 loins, 500 leg roll

chicken: 2,000
50 cases of canned meats
500 sacks of flour
20 pails of peanut butter
150 drums of powdered milk
40 cases of toilet paper
72 packages of toothpicks
8 dozen brooms
25 cases of Lifebuoy soap (but only 15 of Lux and 10 of Ivory)

20.Charles Hames, op. cit., p.68.

21.Gallie describes this process well: "Snowmobiles are put on the road to tramp down the snow and allow the frost to penetrate well into the road bed ... The unit of transportation, called a swing, consists of three tractors, each hauling up to six sleighs ... Operation is continuous, with a crew of six drivers and two brakemen working 4 hr on and 4 hr off ...

The specially constructed freighting sleighs are loaded to about 8 tons each. Special equipment and extra heavy pieces weighing as much as 30 tons are hauled on sloops and slide directly on the road." Ibid., p. 331.

22.See Alan "Doc" Gallie, "Address to the Empire Club," March 11, 1954, p.7.

23."Address to the Aesculapian Club, February 20, 1959," p.5 of notes.

24."Sherritt Gordon," n.d., p.9. For the record, this "turkey story" was a Christmas joke--since nobody ever ate raven.

25.Letter from Alan "Doc" Gallie, June 19, 1996.

26.Charles Hames, op. cit., p. 71.

27.Letter from Alan "Doc" Gallie, November 12, 1996.

28.In a publication of Sherritt Gordon in the late 1970s it was noted that at that time Lynn Lake had continued to grow. There was a volunteer Fire Department and Ambulance Service, an R.C.M.P. detachment, a bank and credit union, telephone exchange, post office, a hotel, two restaurants, 447-seat theatre, modern 25-bed hospital (with 2 doctors and 2 dentists), and a school complex with over 40 classrooms. The population was over 2,500. See "Sherritt Gordon," n.d., p. 10.

29.This information is taken from Alan "Doc" Gallie's address to the C.M.A., in Winnipeg, in April 1958.

30.Eldon L. Brown, "Notes on Discovery and Financing," p.5.

31.The Laurie River operation is about 45 miles south of Lynn Lake. Dams had to be built and a 45-mile power line set up to provide the power for the community. This cost some $4 million.

32.Data taken from "Sherritt Gordon Nickel Program, November 15, 1951," P. 2.

33.Interview with Gordon MacKay, Toronto, August 20, 1996.

34.Robert H. Ramsey, Men and Mines of Newmont: A Fifty-Year History (New York: Octagon Books, 1973), p.187.

35.This process is described well in ibid., pp. 192-198.

36.An April 1965 document provides a useful glimpse at the workings of the company. Total dollars required for Lynn Lake operations in 1964 were $10,784,000, and gross payroll was some $4,471,000. The average number of workers on the Sherritt Gordon payroll at that time was 710 (including 364 people working underground). See Sherritt Gordon Mines Limited, "Brochure of General Information," April 1965, p. 24.

Chapter 2
Into the Refining Business: The Establishment of Fort Saskatchewan, 1954

The earlier generation of Sherritt employees could hardly believe the new direction in which they were now headed. Mining was one thing, but the immense building project in Fort Saskatchewan must have caused them food for thought--even if Eldon Brown was at the helm. The move from Sherridon had at the time been a major undertaking--but it was nothing compared to the new direction that the company was now pursuing. This was indeed a massive project, far more complex than the simple mining procedure, and many must have wondered whether the Sherritt Gordon management had lost its senses. It was one thing to run a straightforward mining operation--and quite another to maintain that while getting involved in an extremely complex process of refining, particularly when the process being involved was new and relatively untried. The risks were high indeed. Long-time employee Neil Colvin, who started his career at Sherritt Gordon Mines as a janitor (and ended it as metals plant superintendent) has put this leap of faith well: "The major pilot plant and design work for "Newmont's Folly" at Fort Saskatchewan were essentially complete by 1953. At the time, it was regarded as an experiment based on processes that had not been proven commercially. Metallurgy pundits had decided it would be a complete flop. Based on this prediction, an article appearing in Fortune magazine in the early fifties named it "Newmont's Folly" and so it was christened."[1]

Gone were the days of being a traditional mining company, with work centred on the mine--as had been the comparatively simple life of Sherridon and Lynn Lake. Instead the medium-sized mining company was now embarking on the construction of a huge industrial complex (and hundreds of miles away from Sherritt Gordon's traditional roots!) that could make or break company fortunes-

-hardly a project for faint hearts. The Fort Saskatchewan refinery eventually came into production in the summer of 1954, just under a year after ore started being produced at Lynn Lake. There had been many difficulties during this period, but through it all Eldon Brown had been able to project an image of quiet confidence. A new stage in Sherritt Gordon's evolution began with the opening of the refinery, one that was born out of optimism (and to a large extent necessity, given the amount of feedstock being produced, as well as the financial attractions resulting from the value-added process). This was all new for Brown and his colleagues, yet they believed that "the little company that could" would indeed pull through and meet this new challenge. Over the next decades their faith would be put to the test on several occasions, as the company went through good times and bad. This chapter seeks to provide an overview of Sherritt Gordon's evolution during this period, examining the battles it won, and those that it lost.

In all probability, if Sherritt Gordon had been able to have its nickel concentrate from Lynn Lake refined by giants in the business such as Falconbridge Nickel and International Nickel, the company would have remained a moderately-sized mining company, focussing mainly on mining concerns and the domestic market. It is highly unlikely that it would have entered the refinery business. Given its track record, it would undoubtedly have continued to be a quietly profitable mining operation. But it could also have failed, given the roller-coaster ride that is typical of the mining industry as prices rise and fall precipitously. (In this process it is clear that it is the smaller companies that tend to be swallowed up by the huge ones, since the latter have the financial wherewithal to survive the cyclical movements. By contrast the smaller companies do not possess the deep financial pockets necessary to wait out tumbling world prices, and are often bought out by the larger operations. It does not take much imagination to see clearly that this could have easily

happened to Sherritt Gordon). Another problem of course was what to do after (finite) feedstock was exhausted--as had already happened at Sherridon. In fact the exhaustion of mineral resources at Lynn Lake (in 1976) meant that, once again, Sheritt Gordon was facing the unenviable prospect of being a company with a rich mining tradition--and yet again in search of a mine.

Certainly the company would not have evolved into the broad-based corporation of the late 1990s, with various industrial, mining and scientific interests if it had not expanded by means of the Fort Saskatchewan operation. Moreover, its huge fertilizer component (which for many years was the mainstay of its economic base) would never have been commercialized. (The large amounts of fertilizer--fortunately with a large potential farming base nearby--resulted from the refining process itself, a most welcome, and profitable, by-product). Yet again the hand of fate intervened, forcing the company to face a new challenge head-on, and devise a solution to its dilemma: Sherritt's decision to build the refinery in essence meant that it was evolving with the times, so that it would not become a (relatively small-sized) dinosaur in the mining industry. The company was therefore at an important crossroads, and Eldon Brown was determined to rise to the task by bringing on stream the Fort Saskatchewan refinery.

In retrospect, Brown's decision to establish a completely integrated nickel operation was absolutely essential if the Lynn Lake operation were to be viable--there was clearly no alternative since the company had by then reached a dramatically new level of production. As a result, if it were to remain in the mining business, it had to scale up its whole approach in order to deal with the comparatively large amounts of ore being produced daily at Lynn Lake, and which continued for over twenty years. At the same time, Brown's decision must have left his shareholders gasping with concern: after all, the extensive costs of developing Lynn Lake had come from the profits resulting

from the Sherridon operation--and the company had paid no dividends to the shareholders from 1946 to 1960. And now he was proposing another massive capital outlay, just when the financial picture was improving... Moreover, as noted in the previous chapter, the struggle to secure financing for the new Fort Saskatchewan plant had proved a nerve-wracking experience for Sherritt Gordon executives. It was not an easy time for the company, especially when it also had financial difficulties with some of its other mining enterprises, such as the Ruttan Mine--which ended up as a significant drain on company finances. The continuing saga of unstable world commodity prices also complicated the process, since medium-sized operations such as Sherritt Gordon were far more vulnerable to these cycles than major operations like INCO or Falconbridge.

Eventually Sherritt Gordon Mines did evolve to become a major player on the Canadian mining and refining scene, and one that was--and to a large extent still is--held in particularly high regard for the quality of its research and development programme. More important, however, was the dramatic process of diversification on which it engaged, particularly in the post-Brown years. (Eldon Brown retired as president in 1968, although he did remain as chairman of the board for a further three years). This was an extraordinary evolution, taking Sherritt Gordon from being just a medium-sized Canadian mining company to one with a multifaceted economic base for its operations, involving in a variety of spin-off goods and services, and operating throughout the globe. This diversification process is extremely important (and so essential given the vagaries of the mineral market) that it is the focus of a separate chapter on research and development (Chapter 4).

In the early 1950s Sherritt Gordon was facing a dilemma, due largely to its size. In essence the company was not large enough to compete with Canadian and U.S. mining giants, and yet at the same time was already too large--with a surplus of talent and, at one point, feedstock--to remain as

a relatively small-sized mining company. To survive and develop, therefore, it had to carve out for itself a distinctive corporate identity, and to provide a significant "value-added" component to the raw materials from which it had for decades earned its living. This was not going to be an easy process--since it meant re-assessing both its traditional role and indeed its entire corporate operation. Moreover, as this chapter illustrates, there were many problems facing the company. That said, Sherritt Gordon did overcome these difficulties, and steadily managed to carve out a niche for itself, one that incorporated not only its longstanding mining heritage, but also took in a variety of previously unrelated industrial activities.

As mentioned earlier, the building of the refinery at Fort Saskatchewan illustrated the breadth of vision projected by Brown. At first it was largely his personal project, and one that certainly would have raised eyebrows throughout the mining sector. The new plant used state-of-the-art technology, and was extremely well planned, although its completion was delayed on several occasions, raising much concern among financial backers who wondered whether this time Brown had bitten off more than he could chew. For example, it must have been frustrating to see the lack of steel for the huge buildings cause several delays in meeting construction deadlines--particularly when the increase in construction costs led to some nail-biting negotiations with financial backers in New York. Throughout it all Brown was convinced, however, that his approach (and his leap of faith) would be justified--and history has proved him right.

It is worth emphasizing just how daring this approach was as he set off on this radically new vision for Sherritt Gordon. The conventional approach in processing minerals at that time was to follow the lead set by International Nickel's plants at Sudbury and Port Colborne and establish a smelter and electrorefinery to process the feedstock. Undoubtedly Brown and his advisers would

have considered such an approach if it had been feasible. Yet the remote location of the mine site at Lynn Lake, the comparatively small ore reserves (when compared with the immense ore potential of the Sudbury area), and the lack of local fuel, all made this a dubious proposition for the company. Accordingly, if Sherritt Gordon were to maximize its operation, the plant would need to be based on a dramatically different strategy of refining the feedstock. The company had traditionally been far-sighted in its approach to research and development, and after years of experimentation managed to resolve its dilemma by dint of imagination, innovation, and hard work. And, once again, with more than a little luck. The key to unlocking the company's problem would come from some trail-blazing research done by a professor of metallurgy at the University of British Columbia, Frank Forward. It was on his work that Brown was pinning the company's future.

The Quantum Jump:the Forward Process

As early as 1946, research at the Sherridon laboratories had shown that high grade nickel and copper did not need to be produced by the traditional method of smelting, but instead could be obtained by the simpler process of flotation. When it became obvious that Canadian refineries could not guarantee the processing of quantities of nickel which would result from mining at Lynn Lake, and that the location was not appropriate for the traditional smelter process, Sherritt Gordon focussed its attentions on alternative technology to resolve its newfound difficulties--and Forward's ideas became particularly appealing. Until this point Sherritt Gordon had always been able to find a larger company to refine its minerals, but as the years passed this had become increasingly difficult. Clearly the company had to come up with a radically different strategy in order to maximize the large amounts of feedstock that Lynn Lake was producing. The question facing the company therefore

was: could they afford to "go it alone" and refine the feedstock themselves? As Derek Kerfoot has pointed out,[2] the process chosen had been pioneered in Canada by Forward after many years of research. By applying the Caron process to samples of roasted Lynn Lake nickel concentrate, "the roasted sulphide concentrate was first reduced with hydrogen at 450° to 500°C, to convert the nickel and copper to metallic forms, and most of the iron oxides to magnetite. Nickel and copper were then leached in ammoniacal ammonium carbonate solution by electrowinning, and the nickel was precipitated as basic nickel carbonate which was calcined to oxide and reduced in hydrogen to a marketable nickel product."

In other words, the ore feed containing nickel, copper and cobalt was dissolved in a solution of ammonia and ammonium sulphate, from which the metals were then recovered one at a time. The nickel was leached out of the ore using ammonia and air as the leaching agents. A new direction of research resulted, seeking to improve the leach extraction process by increasing the temperature and oxygen pressure, and to develop methods of separating the various metals from solution. This both reduced the cost of the actual refining, and allowed another mineral--cobalt--to be recovered from the process. (There was an added bonus of having ammonium sulphate fertilizer result as a valuable by-product. Since Fort Saskatchewan is in the middle of an extremely rich farming area, and with the U.S. Prairie market close by, it meant that the company could also market this fertilizer at a fairly low cost). Indeed, so successful was the fertilizer business that for many years of depressed metals prices it was the fertilizer byproducts that kept the company viable.

In lay terms, this refining process meant that--in theory--by a rather straightforward chemical process, it was now far simpler, and cheaper, to subtract nickel from the ore than had been originally thought. No longer was it necessary to have a separate smelter: indeed smaller operations could now

undertake their own refining. This process also differs from the traditional refining method in that the nickel produced is a pure metallic powder which is suited for a variety of modes of application. It can be pressed into nickel briquettes (the preferred method in the industry), but can also be used directly in powder form by chemical companies. By using a distinctive Sherritt Gordon process it can also be compacted into a coil strip and then sintered to allow for the minting of coins and medallions, something in which Sherritt Gordon subsequently became heavily involved, producing a variety of medals and coins for many countries. (In Canada, for example, the company won the contract from the Royal Canadian Mint for several years to build coin blanks for the nickel, quarter and "loonie"--or $1-- and "toonie" coins. This is dealt with in more detail in Chapter 4).

But the laboratory experiments in a U.B.C. metallurgical laboratory were one thing, and the need to process mountains of thousands of tons of nickel ore, something far different. Sherritt scientists thus had to analyze whether this research, which in theory seemed sound enough, could be scaled up to such an extent to make this refining process feasible. This was far more complex than it may appear and was by no means certain, since until this point the technology had not been harnessed for such amounts. To test this hypothesis, as early as 1947 the company had established a pilot flotation plant in the Sherridon mill, where it had brought some 780 tons of ore as samples. Professor Forward met with Eldon Brown and was provided with funding to pursue his research. If this hydrometallurgical approach, separating nickel, cobalt, and copper extractions, were to work, this would indeed prove to be far more economical than the traditional smelting and electrorefining process--and could provide the company with a solution to its most pressing problem.

The results of these initial experiments were promising, and so it was decided to investigate their application on a larger scale. In many ways the future of the company rested upon the viability

of this process, since if the approach were not to work, financing for the planned expansion of the company would obviously have been difficult, if not impossible, to find. And Sherritt Gordon would in all have probability have remained as a medium-sized mining company, involved almost exclusively in the extraction of minerals--and constantly on the lookout for fresh mine sites to replace ever-depleting stocks.

Sherritt Gordon embarked on an ambitious programme of experimentation designed to scale up the Forward process, in an effort to determine whether it was in fact financially viable in its desires to run a refining operation, thereby maximizing its successful Lynn Lake operation. In December 1948 an agreement on applying this research was reached by Sherritt and the Chemical Construction Corporation (Chemico), a subsidiary of American Cyanamid. Chemico had significant experience in establishing such pilot plants, and had also undertaken research into pressure-leaching metal sulphides in acid solution. The Mines Branch of the Canadian government provided a building in Ottawa for the pilot plant test work, and three Sherritt staff workers were assigned to work with Chemico engineers and Professor Forward to examine the hypothesis further.

Things started well, but by 1950 it was obvious that the pilot plant operation was too big for the facilities. Once again it had become necessary to scale up the model in order to understand better the chemistry and engineering requirements involved in the process before a commercial plant could be built. A disused foundry on Slater Street in Ottawa was then converted to suit this purpose and the Sherritt team moved to the facility in November 1950. Charles Hames was appointed Manager of the Metallurgical Research Division, and directed operations in Ottawa, until he transferred to Fort Saskatchewan in 1953 as Refinery Manager. At that point Vladimir Mackiw took over his position, and was appointed Director of Research in 1954: his contributions to the research activities of the

company proved of seminal importance to Sherritt over the years. Indeed several hundred patents were issued for research undertaken by the company in which he participated.

The research work at the foundry expanded rapidly, and so did the work force--from 30 engineers, scientists and technicians in 1950 to over 140 (from over twenty different countries!) just three years later. Most were Europeans, who had immigrated to Canada after World War II, and heavily-accented English soon became the scientific language spoken by all.[3] Members of that early operation talk with great fondness of the excitement of those years, knowing that their work was crucial if Sherritt's gamble at the Fort Saskatchewan plant were to succeed. The international flavour of the research group, and the team spirit and dedication that prevailed, made it an enjoyable as well as a productive work experience. The camaraderie that existed among this dedicated team of immigrant scientists, flushed with relief at the end of World War II, pleased to be able to work once again in their chosen field, and keen to succeed in their adoptive country, was a key factor in their collective success. It was largely as a result of the dedication of this group that Sherritt Gordon was able to realize its potential--and, one could argue, possibly even survive.

By the fall of 1951 it proved necessary to build an even larger scale plant (the third pilot plant), with a capacity of 3,000 lbs. per day of concentrate. The objective of this plant was to generate engineering data for the commercial plant, and it was crucially important because Newmont's ongoing financial support depended on the successful operation of this stage. The American company, which in many ways was now the principal financial backer of Sherritt Gordon's plans, obviously wanted to be sure that its investment was a wise one. (It is also clear that some of their executives were not completely convinced by what they perceived as the excessive risk-taking of Eldon Brown). As a result Newmont executives were often at the pilot plant, checking and

querying the process--sometimes to the consternation and despair of the Sherritt Gordon scientists. In early 1952 this pilot plant was operated continuously, with the data generated being used as a model for the commercial plant at Fort Saskatchewan. There appeared to be constant experiments, and a terrific amount of nervous energy was constant. Pilot plant run no. 23--which lasted fully 24 days--was particularly successful. The following test, however, finally demonstrated methods of compaction of nickel powder into solid marketing forms, chrystallization of ammonium sulphate, and the nickel recovery system of hydrogen reduction. Newmont and Sherritt finally agreed upon the market possibilities of the process. In the end the model based upon Professor Forward's approach proved successful--it was indeed possible to scale up in order to process commercially viable amounts of feedstock--and the funding for the larger Fort Saskatchewan plant came through. Speaking some forty years later, Charles Hames, who ran operations in Ottawa, emphasized in particular the role of Vladimir Mackiw, the Ukrainian-born scientist, in the research operations: "he inspired the other researchers, and the end result was a very confident group of people."[4] It is worth noting that until his untimely death in January of 2001 Mackiw remained as a consultant for a variety of Sherritt projects, almost 60 years after he was hired by Eldon Brown as $220 a month to work in a laboratory in Sherridon.

A fourth pilot plant was assembled in Ottawa towards the end of 1952, in essence a smaller replica of the metallurgical plant in Fort Saskatchewan. This plant successfully treated 130 tons of Lynn Lake nickel concentrate, producing 12 tons of nickel metal. The pilot plant was also designed with a trouble-shooting function in mind, namely to identify--and resolve--potential problems that might be encountered once the larger plant was operating. It was discovered, for instance, that severe scaling and slow leaching often resulted from the high calcium content of the Lynn Lake

concentrate--a problem that could be resolved by adding carbon dioxide to the leach, thereby precipitating calcium carbonate.[5] By discovering this pitfall early into the process, it proved possible to identify solutions to such difficulties before they caused problems at the refinery itself. It also of course helped to train many of the senior operators for the Fort Saskatchewan operation. At its height, there were some 140 people working at the Ottawa pilot plant, of whom more than 70, headed by Hames, were subsequently transferred to Fort Saskatchewan to prepare for the commissioning of the plant, which he managed. From several small-scale models that turned raw material into nickel brickettes, it was now time to see if the larger scale plant at Fort Saskatchewan would also work. In theory, it should; in practice, however, it had never been done on this scale before, and there must have been some anxious managers as the plant geared up to process the first shipment of ore.

1954: Fort Saskatchewan Starts Up

While logic dictated the need for a large refinery, it also required a great deal of faith in Brown's management skills to set up something as large--and as complex--as the Fort Saskatchewan plant. Walking around it in the late 1990s, one is overwhelmed by its size--it truly is immense. But in the 1950s, when the company had absolutely no experience in anything of this magnitude, or with production on this scale (or indeed with running a refinery at all), it must have been a nerve-wracking experience for the Sherritt Gordon management, notwithstanding Brown's quiet confidence and legendary tenacity. There was also the challenge of developing the town itself, and readying it for the many hundreds of employees who were soon to descend upon Fort Saskatchewan. This was in itself a major challenge, since in addition to the many difficulties involved in setting up

and managing the refinery, there was also the question as to whether it would be possible to combine the essentially farming ethic of this small Alberta town of just 1,000 people with that of a large industrial complex. Dozens of tasks had to be taken up--from building houses for employees (two large construction brigades were hired to build sufficient homes for the influx of Sherritt workers who shortly flocked there) to coordinating the many sections of the plant that were being assembled, often simultaneously. And while this was taking shape, it was of course still necessary to manage the Lynn Lake operation, which continued to provide feedstock for Fort Saskatchewan. Finally it was necessary to assure the financial backing for this major shift in the company's direction. Clearly it was not a time for faint-hearted managers.

With an ambitious and imaginative set of financial arrangements instituted (clearly not a stress-free operation, as the last chapter illustrated), the refinery was finally set to work. The actual facts about the refinery's operation are straightforward. As soon as construction of Fort Saskatchewan was completed, in May 1954 the leaching of concentrate was started. In all some 3,500 tons--and a period of 5 weeks--were needed to fill the leaching circuits. Almost 2 months later (on July 21) the first nickel powder was produced, and on August 7 the initial shipment left Fort Saskatchewan. By the end of 1954 the plant had reached 90% of refining capacity, with full capacity being reached the following year. The refinery had been designed to handle 17 million pounds of nickel per year, but as demand for product increased, this grew to 37 million pounds in 1972, following improvements in technique and plant expansion.

Initially all of this feed came from Lynn Lake--which of course was the main reason why the refinery had been built in the first place. However, as supplies declined, Sherritt Gordon looked around for other feedstock. The company had, ironically, become a victim of its own success in

many ways. First, the amount of resources at Lynn Lake had convinced Brown about the need to diversify into the refining business, leading to the construction of the Fort Saskatchewan plant. Then, however, the capacity and efficiency of the Fort Saskatchewan operation meant that the feedstock from Lynn Lake steadily began to be depleted. The Sherritt Gordon Mines operation faced a clear dilemma. Obviously, without feedstock, the large mining operation would come grinding to a halt. Feed materials were thus purchased from a variety of sources in Canada, as well as from South Africa and Australia. Then, as is still the case today, two key variables would consistently play a major role in determining the fate of the company: the price of nickel on the international market, and the need for a steady supply of feedstock. The first was always a major concern in the mining industry; the second had not been seen as a problem, but as June 1976 edged nearer--and the Lynn Lake mine was closed--Sherritt Gordon again faced the unenviable prospect that its expensive modern refinery was useless unless it could be guaranteed a steady flow of feedstock. It was a problem that refused to go away, and which led ultimately to the company being on the verge of collapse in 1990.

Several decades earlier, however, this was clearly not a problem, as 1954 saw Sherritt Gordon usher in with confidence a new era in the company's history. It was now the proud owner of an immense state-of-the-art refining plant in Fort Saskatchewan. Moreover, mining production at Lynn Lake had experienced a banner year, exceeding expectations by 33%. The company had also made a profit for the first time since the closing of the Sherridon mine in 1951. Clearly the gods were smiling on Sherritt. It was now solidly in the refining business (complete with a variety of profitable spin-off products), and with an increasingly important research programme. After the inevitable teething problems, steadily increasing production rates were promising. In short, things definitely

appeared to be looking up.

As had always been the case, to this point it was still very much a mining company--except that now it possessed a rather sophisticated refinery to process the feedstock it produced. This proud mining tradition on which the company had based its corporate identity would continue for several years--although the winds of change were soon blowing, obliging Sherritt executives to diversify into other non-traditional sectors. Of particular importance was the major push to take advantage of the fertilizer side of the business, since this by-product of the refining process would soon become particularly important. To the consternation of some of the old miners in Sherritt Gordon, the mining company was about to become a leading national producer of agricultural chemicals--the value of which for several years was significantly greater than the actual minerals processed.

The location for a refinery at Fort Saskatchewan has often puzzled observers, who have wondered why a mining company in Manitoba would set up its refining operations so far away in Alberta. It was, after all, some 800 miles from the principal mine for its ore feed--which at first sight would appear to be a major drawback. In fact there are many natural advantages for this site--which explain why, after detailed analysis of alternatives in British Columbia and the Prairies, Fort Saskatchewan--some 17 miles northeast of Edmonton--was eventually chosen. Wells at Fort Saskatchewan, for example, provide abundant natural gas--the raw material from which ammonia (a key ingredient for the leaching process, and especially important later when fertilizers became a fundamental aspect of Sherritt enterprises) is derived. Sulphur (to be mixed with refining byproducts in order to produce fertilizer) can also be purchased locally. Water (large quantities of which are needed for cooling) can be found in the nearby North Saskatchewan River. Geographical proximity to the U.S. market and to Asia (via the port of Vancouver) is also important, facilitating the export

of nickel products and chemical fertilizer. Finally, because of an earlier financial agreement with the Canadian National Railways (which had built the railroad from Sherridon to Lynn Lake), the site for the new plant had to be located on a CNR rail route. (Calgary, for example, was considered as a site, but is serviced by Canadian Pacific Railways, and was thus discounted). In short, the choice of Fort Saskatchewan, so far away from the refinery's mineral supply, was therefore not so bizarre as might at first appear.

When construction of the plant began in May of 1952, there was an initial outlay of some $25 million, and by 1973 the total capital investment was $75 million, a not insignificant amount for Sherritt Gordon. Needless to say, in tandem with the construction of the plant, there were also major changes afoot in the community itself. Prior to this time, Fort Saskatchewan had been a small rural community--but that was soon to change. In 1954 alone some 550 new inhabitants (employees of Sherritt Gordon and their families) moved into the town. Some 79 houses were initially built for these employees, and improvements to the streets, and fire and police departments took place (By 1956, 120 employees were purchasing their homes through payroll deductions, an important psychological factor in their personal investment in the company and the town). The rapid increase in the population continued, and by January of 1956 the population had increased to just under 3,000, a huge increase in just four years.

Writing in 1989, Plant Manager Dennis Maschmyer--who himself is from the area--reflected on the 35-year period which Sherritt had been in Fort Saskatchewan. His comments on the evolution of the company's impact on the local community are insightful. This constituted "enough time for the young married couple in those days to be grandparents today with sons and daughters continuing their own family tradition with the Company. Thirty-five years ago veterans from the Slater Street

pilot plant in Ottawa, aptly called the Ottawa Senators were joined by young recruits from the local farm population. Many farmer boys were introduced to a new way of life and trained in skills of operating the new chemical plant."[6] Perhaps no better indication of Sherritt's relationship with the local community can be seen in the massive participation in June 1989 at the 35th anniversary of the plant, at which more than 5,000 people participated. (At that time the entire population of the city was not that much greater).

But what was the reaction of the incoming Easterners to Fort Saskatchewan? Judging from early accounts, many were not impressed initially. Veteran Sherritt employee Neil Colvin has reflected with some clarity on his own experiences, and caught well the spirit of the time: "To the invading Easterners of 1954, it was a society hardly to be believed ... There were no paved roads and no sidewalks, except some 100 yards of wooden walk outside the downtown stores. There was one place to eat and Antoine's it was not. One condition of the place that horrified a lot of people was the high iron content in the local well water. This meant that if you fixed yourself a much-needed scotch and water, the whole drink turned inky black.

There was no entertainment except in a few service clubs. No liquor lounges existed in Edmonton, the nearest city, since mixed drinking was illegal then. Strangely enough, in Fort Saskatchewan two hotels sported dual sections one for men and the other for ladies and escorts. But, these were beer-guzzling joints only. In all places of entertainment there was the absolute minimum of furniture. To sing, to stand while drinking, to do anything except swear, imbibe, or belch was completely forbidden.

The overwhelming crudity of these drinking barns was something to behold. This was the Social Credit era when original sin was still a serious concept amongst the local gentry. The

easterners were, at first, amused and then appalled."[7]

Particularly interesting was the reaction of the central nucleus of foreign-born--largely East European--professionals who moved to Fort Saskatchewan. As lifelong Sherritt employee Vic Benz (whose father had arrived from Poland to work on the Ottawa pilot plant and had then been transferred to the Fort) noted in June 2001, "at that time the Fort was as far from civilized Europe as you could get." The Sherritt operation--reflecting the international blend of researchers at the Ottawa plant--was, according to Benz, "phenomenally multicultural." The displaced persons from Europe, so glad to escape from their ravaged countries, were desperate to succeed, and were determined to make a lasting contribution in their new homeland.

The rural conditions in Alberta that they encountered were totally different from anything that they had experienced before. As a result, in order to survive they threw themselves actively into the self-sustaining community that took as its focal point the Sherritt Gordon plant. Their work became, for many, their life. No 9-to-5 schedules here: the labs remained open throughout the day and night, with research and work acquiring extreme importance. Members of this exceptional international scientific community quickly learned to rely on each other, and to develop their loyalty to the company. In turn they were supported by a paternalistic, well-meaning, and supportive company management. In many ways Sherritt Gordon employed the same boilerplate approach that it had found successful in Sherridon and Lynn Lake--and for several decades this worked perfectly.

Fort Saskatchewan now (2001) has a population of some 13,600. But back in 1954, with a population of just 1,000, the impact that the sudden arrival in this sleepy rural Albertan town of hundreds of Sherritt Gordon employees, many from an urban background and others from rather tough mining camps, must have been dramatic indeed. Strolling around "the Fort" some forty years

later, the presence of the company is understandably great, and many families have members from several generations working at the refinery. The large clock tower in the central civic plaza, a gift of Sherritt Gordon after completing its first quarter-century in Fort Saskatchewan, symbolizes the importance of the company in this community. In a more practical fashion, the donation by the company of the community swimming pool had been particularly appreciated--and had attracted people from Edmonton to come and swim. (At the same time, things have changed significantly in recent years. Sherritt, for example, is no longer the single largest employer in town. And Fort Saskatchewan has developed greatly, as can be seen from the 138 pages of listings for local entrepreneurs in the 2001 Business Directory published by the Fort Saskatchewan Chamber of Commerce. Put simply, the city has grown up, while the former paternalism of Sherritt has moved on as the company has evolved--and as other players in the chemical industry have moved into town).

"Father-knows-best": Paternalism at the Fort

The company clearly dominated events in Fort Saskatchewan, and to some extent still does--its looming presence since the early 1950s is understandably inescapable. (In an interview with Mayor Ken Hodgins in June 2001, he mentioned how for decades Sharritt Gordon had been the major employer in town. Its management and employees had been steadily involved in local service clubs, the Chamber of Commerce, and local churches. Several of its management, as well as the head of the union, had served on City Council. In sum, noted Mayor Hodgins, it had always been--and continued to be--"an excellent corporate citizen"). Its management had always had a major say in the town's development, and had imposed its approach on civic participation, sometimes in a

none-too-subtle fashion. In October 1960, for example, in a nwsletter put out at the plant they urged employees to participate in local elections: "Your attention is drawn to the Editorial in this issue with regard to civic elections, and your right to vote. The privilege of voting is a right which is denied many people throughout the world. In Canada, in many places, the attitude is now we have it--we don't want it. 'LET'S ALL GO TO THE POLLS."[8] Significantly, the next issue congratulated three company employees who had been elected mayor, councillor and President of the Recreation Club, all in Fort Saskatchewan.

In many ways just as unique as the company's local presence in the community is the role of the union at the plant. As noted earlier, a study of more than four decades of labour relations at the refinery reveals an unusual fact: despite its size, there has never been a strike at "the Fort" as company employees describe it. That record of labour-management peace was nearly spoiled in June 1973, however, when there was almost a strike. The major issue was the question of a shorter work week for the same pay, a position rejected by management. A Conciliator's report was drawn up, but was turned down completely by the union, and when a government-supervised strike vote was called for, the company and union finally came to a settlement). This, together with the long strike noted in the earlier chapter, represent the low points in a long, and extremely harmonious, labour-management, particularly noticeable in the early days of Sherritt-Gordon's presence in Fort Saskatchewan. This traditional relationship can be seen in a plaque placed in Eldon Brown park in Fort Saskatchewan in 1998 by Local 530A of the Communications, Energy and Paper Workers Union of Canada. It notes: "This landmark honours the matchless enthusiasm and accomplishments of Sherritt's past and present employees who embraced ongoing challenges that have resulted in significant benefits for both the Company and the citizens of Fort Saskatchewan." The plaque was

donated by the union "in recognition of this relationship of Company, Union and Community that has existed since 1954."

It is fascinating to read the company publications of these years, and to see the benevolent paternalism inherent in the management mindset. One is struck by the rather benign authoritarianism that often came across in company memos. The December 1961 "Company News" section of the local newsletter, for example, shows their good intentions, accompanied by some mild finger-wagging at the workforce: "With the return of winter weather we are having our usual troubles with cars that won't start. The Company, in the past, has made men and equipment available, when it was possible to spare them from company use, to help cars get started. We hope to continue this policy but it must be remembered that Company requirements must come first, and it will not always be possible to free men and equipment for towing work."[9] Thirty years later this paternalistic approach could still be seen. Take for example the "father-knows-best" approach seen in advice for employees just before Christmas about "Holiday Hazards." Among the pointers given: "Clean up after parties. Kids are tempted by food and drink leftovers. What they taste could be alcoholic drinks or spoiled food." In addition, employees were advised to "keep house plants out of the reach of small children. Many plants like mistletoe and poinsettias can be toxic to a small child if he or she decides to nibble on a berry or a flower."[10] The Company (always spelled with a capital) was clearly prepared to be helpful, but also wanted employees to respect management authority.

The folksy, benevolent tone in company publications is worth noting, since it speaks volumes of the carefully cultivated "down home" feel projected traditionally by Sherritt management. Of particular importance was the regular newsletter for Sherritt employees, the "Nickelodeon." A strong sense of community spirit, genuinely felt, can be seen from the social news, such as that found

in the "Screenings" column. Typical is the vol. IX, no. IX (October 1963) issue, in which the following tongue-in-cheek news is passed along to all Sherritt employees: "Garth Osbaldston (Metals Recovery) is the proud owner of a spanking new '64 Ford Galaxie...Bill Matwichuk (Chemicals) recently bought a dozen purebred Hereford calves from Saskatchewan. This makes a total of 13 more mouths to feed as readers will note by the Stork Club column that Bill is a proud new daddy ... We hear that Ed Tuchsen (Stores) recently took the final week of his vacation and ventured into the great outdoors in search of big game. Ed says 'I came home emptyhanded again, my excuse--too early in the year and too many leaves on the trees"(p.7). The same issue lists ten employees who had recently become parents.

Sherritt Gordon of these years went out of its way consistently to show that it respected the families of its employees. Again, well-intentioned paternalism resulted in a number of programmes and services for company employees. Scholarships to attend university for the children of employees were awarded annually. Cultural and sports events were routinely sponsored (as was the local hockey team). There was also the "Great Sherritt Kid Exchange," which sent 28 children from Fort Saskatchewan to Lynn Lake for two weeks in the summer, with the same number flying in the opposite direction. Once again the idea was to develop and strengthen employee identification with the company.

Social history buffs would be amazed to see the amount of activities sponsored by Sherritt Gordon from the 1950s to the 1980s, all supporting the community-company relationship. Curling bonspiels, drama club, teenage sock hops, bowling leagues, art and crafts shows, the Merry Mixers square dance club, shuffleboard and darts leagues, skating parties, blood donor clinics, bingo, charter flights--and of course the annual picnic. The 1969 version, for instance, saw participants devour a

staggering 1600 hotdogs, 2500 soft drinks and 2000 bags of potato chips. A number of competitions were also held--egg-throwing, soda cracker whistle, organized shoe scramble, grocery scramble race, tug-o-war, sack race, ladies potato and spoon, and the like. Understandably all these activities strengthened the bonds among company and employees, and between Sherritt Gordon and the community.

Labour-Management Relations

The long record of labour-management peace at Fort Saskatchewan is unusual, and compares more than favourably with any mineral refinery in North America. The obvious question to be raised is why things have developed so positively, and for so long. An interview in August 1996 with longtime union president Gordon Hostyn shed some light on this tradition. In part it is a function of the size of the town, for it is obvious that harmonious relations are desirable when people from the plant are continuously bumping into colleagues from work, be they on the management or labour side. At both Sherridon and Lynn Lake there had indeed been a feel of "family" among the people who worked there, an aspect that both management and workers consciously supported, and sought to foster at Fort Saskatchewan. There was now of course a quantitative jump in the number of Sherritt Gordon employees, and yet despite that the distinctive corporate culture of inclusion--although somewhat diluted--was able to be maintained. (Collective bargaining in 2001, while producing a new collective agreement, also revealed serious differences between management and union positions. The challenge now is to see if the plant can reach fifty years--in 2004--of production without a labour disruption).

Paternalistic in many ways the style might have been, but Sherritt Gordon clearly did look

after "its own." And it was repaid by having a strong sense of loyalty among its workforce--as can be shown by the fact that in 1957 (on the thirtieth anniversary of the company's incorporation--and the resumption of production at Sherridon following a five-year shutdown) there were still on the payroll 39 employees who had been working in 1927, fully thirty years earlier. (On a similar note, in 1963, when watches were presented to 43 employees of the company in recognition of 25 years of service, it was significant that 11% of workers from the old Sherridon mine were still on the company's payroll). In 1971, some 75 members attended the annual "25-Year Club" dinner in Edmonton, again emphasizing the sense of loyalty to the company. Given this sense of identification with the company, and the strong camaraderie, leaving Sherritt Gordon was an emotional experience. In May of 1986, some 400 people came to a reception in honour of 64 Sherritt employees (with a total of 1500 years of work experience with the company between them). An emotional farewell to Sherritt was given by Mick Patterson, who ended by thanking Sherritt for everything, "especially the dental plan!"[11]

Reading through the minutes of company meetings, scores of bulletins and newsletters put out by management, press releases by the dozen, and also through talking with company "old-timers," it is clear that--in terms of labour-management relations--Sherritt Gordon successfully made the transition from a moderate-sized mining company to a large industrial complex. There were differences, though. There was a fairly paternalistic approach employed by management at the refinery, as was common in the 1950s and 1960s, although the presence of Eldon Brown--now thousands of miles away in corporate offices located in Toronto--was no longer felt as directly as before. Something of the inevitable reduction of Brown's charismatic influence at Fort Saskatchewan can be felt in the formal tone of a brief note published in June 1961 about the

upcoming "visitation" of the company president, accompanied by "several of our Directors" and representatives of financial companies that had loaned money for the construction of the plant. It concludes "We are looking forward to their visit and are very pleased to be able to 'show off' the refinery to this interesting and important group."[12] While members of management at the time would dispute the interpretation, it was clear that--of necessity--the size of the company and its head office's location in Toronto would dilute the esprit de corps somewhat. What is undeniable, however, is that this happened to a far lesser degree than anybody could have predicted.

One of the basic reasons for good management-employee relations at "the Fort" was the fact that all workers were kept aware of how the company was doing, financially and in terms of production. At the Fort, management provided detailed quarterly reports to all refinery employees, explaining the company's industrial and financial performance.[13] This clearly led to a process in which most employees felt involved, since it was shown how their efforts were being translated into production output and rates of return. Another useful innovation was the way in which employees were trained to fill a number of positions, and were moved around the plant to acquire different skillsets. Both union and management had supported a "progression system," which paid workers according to their skills, regardless of the job on which they were working. From the management perspective, this meant that the plant could be run more efficiently, despite the absence of key operators (since others with a variety of skills could fill the gap). For the employee, the progression made for steady upgrading--the acquisition of new skills and increased pay.

The company also offered a variety of benefits to employees. Summer jobs were available for the sons and daughters of employees, particularly important in a rural area where summer jobs were hard to find. In addition, mindful of the surrounding agricultural area, and the fact that many

Sherritt Gordon employees had small farms or large vegetable gardens, subsidized fertilizer was available for employees. (In May of 1959, for instance, it was possible for them to purchase ammonium sulphate fertilizer for just $1.25 per 100 lb. bag (to a maximum of 3 bags each year. However, if employees owned a larger tract of land, they were able to purchase 150 lbs. per acre). The agricultural nature of the site was clearly a major influence on the development of the "Fort," as can be seen from this rather quaint note in the local newsletter from the early 1960s: "The management sincerely hopes that those of you who were able to take vacations in July and August were able to find a few real summer days ... a rest from your job is always welcome, rain or shine. The next contingent of vacationers will be the fall hunters who undoubtedly will hope for fresh snow falls to track the deer, moose and elk."[14]

Enlightened management-union relations are clearly a key factor in this relative stability and harmony, since there has long been a tradition for representatives of union and management to meet once a week in order to discuss the running of the local operation. The first collective agreement between Sherritt Gordon and the union (dated June 30, 1954) is illustrative of this relationship. Article 5, for example, noted that "The Company agrees to recognize a Committee of seven employees, four of whom shall have the right of meeting the Representatives of the company at least once a month." An analysis of that collective agreement is instructive. There were, for example, liberal provisions on compassionate leave of absence, employee benefits, annual vacations, grievance procedures, allowances, and even car support (Article 15, "Transportation," for example, noted that "The Company agrees to provide plug-in outlets for block heaters for employees' cars at the Plant"). There were of course grievances, as would be normal in any industrial complex of this size, but the significant fact is that these were generally dealt with speedily (and with a fair dose of common sense

shown by both sides)--with management and union leaders engaging one another constructively. The tone of this harmonious working relationship was set in the early years of the plant's operations. The minutes of the January 1955 meeting, for example, noted the only grievance presented by any of its members since the plant had opened nearly a year earlier, and concluded: "The outcome of this grievance was that the Company agreed to send Brother Gilchuk a cheque for time lost." A union member complimented his colleagues on pursuing this matter to protect the interests of the affected worker, to which the plant manager, Charles Hames, "agreed and closed by saying that, in ten months, that one major grievance seemed a pretty fair record." Interviewed in 1996, Hames noted how he had walked around the plant four or five times a week to meet with plant workers (most of whom he knew on a first-name basis) "to get their beefs, talking to people a lot, and then coming back to the office and doing something about them."[15] It is an interpretation that is shared by union representatives from the time--clearly an exceptional spirit of labour-management cooperation was a constant at the time.

One episode in this history helps to illustrate the pragmatism practised by both management and the union. The collective agreement which had expired in April 1983 was extended by eleven months to March 1984. No increase in wages was paid during that period, although wage rates were to be reviewed. This concession by the union was made, "recognizing fully the Company's position in the depressed markets for its products." Management reaction was understandably upbeat. Executive Vice-President Vladimir Mackiw summarized it well: "Regardless of our positions in the Company we have respect for one another, working energetically towards our goals. Our management-union relations are exemplary in the industry." Union representative Bill Hostyn's remarks also show a constructive approach: "Where we might slip down one rung on the ladder in

our negotiations, I am quite confident that we will regain this ground as the economy improves. I think 1982 has been a year where we all learned something as Union members; that we have compassion, patience--and trust."[16] (A key aspect of management-union relations is that, while wages at Sherritt might not have been the highest in the area--particularly after the Dow Chemicals plant opened--management has made extraordinary efforts to ward off layoffs. Their record on keeping people working goes beyond the hardnosed business approach that one might expect from a company of its size. This has been a consistent aspect of the management approach at "the Fort," since the plant opened in 1954. There has definitely been a significant amount of slippage since the division of the company in the mid-1990s, and labour-management relations are nowhere near as good as they have traditionally been--but they are still significantly better than at other operations of a similar size.

In 1984 Local 530 of the Energy and Chemical Workers' Union celebrated three decades of union activity by publishing a compilation of documents on life for its members at the Sherritt Gordon plant during the previous thirty years. It provides a fascinating look at how life had evolved for organized labour during those years. In 1953, for example, Head Operator workers at the plant received $1.90 per hour, a pittance by today's standards. To put this in the appropriate context is of course necessary: for example, company housing was extremely cheap--with $5.96 per month being charged in interest per $1,000 of the mortgage on subsidized company houses (at that time 2-bedroom bungalows sold for $8,600, while 2-story houses generally went for $10,300). Local taxes and insurance amounted to but $15 per month, and with 25-year mortgages plant employees paid an average of only $80 per month for their homes.[17] Medical service was provided initially by Dr. Archie MacGregor, who received $1 per month from the company for every employee at the plant.

He was later joined by two other doctors, who provided a free medical service. A company town it definitely was, but one with a fairly liberal mindset, a friendly atmosphere, and a number of significant benefits for employees. To a large extent this record can be attributed to the collective memory of those Sherritt Gordon employees who had worked for many years at Lynn Lake and Sherridon before that, but to a larger extent--since most inhabitants of Fort Saskatchewan had joined the company later--it was because of a combination of relative prosperity, and a fairly solid and transparent union-management relationship.

According to the union records, the first meeting of hourly paid employees of the plant took place on November 8, 1953. In the second meeting (November 29) a motion to adopt a name for their organization ("Sherritt Gordon Employee Association") was passed, with a fee of 50 cents per employee to be charged--in all the princely sum of $16.59 was collected at that meeting. The union affiliated with the International Chemical Workers' Union, with which it stayed until March 1976 when it broke away from the U.S.-based union and joined a Canadian one, a fact with which union leaders of the time were pleased.[18]

Notwithstanding this tradition of labour harmony, the company was really pushing its commercial luck in the early 1950s. In many ways the challenges, and difficulties, faced by Sherritt Gordon at that time parallelled those of the earlier move to Lynn Lake. Once again, for example, the company was moving into unchartered waters, pursuing a radically different tack, developing a new town (or at least changing dramatically an existing one), and in many ways challenging the odds. Commenting upon those early years at the plant, lifelong employee Neil Colvin has put things in an appropriate perspective: "All of us at Fort Saskatchewan were struggling to understand, optimize, prove, and maintain an operation which still had no general sanction from the mining and

metallurgical industry. We did have two advantages: blissful ignorance of our ignorance and the backup of a powerful leader who new better than any of us the value of the new technology."[19] There was a nervous excitement in the air in this brave experiment of the early 1950s. (The fact that the company executives--still led by Eldon Brown--were in Toronto must also have been a psychological barrier to overcome, since in many ways he had entrusted them with getting the Fort Saskatchewan plant off the ground). The potential benefits were of course far greater--but so were the risks. It took two years to complete the large plant, following the many difficulties noted earlier. There was also the mammoth task of physically moving hundreds of employees and their families to a new community, much as they had needed to do in Lynn Lake.

None of this was easy, particularly given the strained resources of the company, and the concern of its financial backers at Newmont Mining as it scaled up its operation. Finally, however, things gradually fell into place: the day came when ore was transported from the Lynn Lake mine, teething problems at the plant were gradually resolved, and the first nickel ore was produced. On August 6, 1954 the first rail cargo of fine nickel powder left Fort Saskatchewan bound for the U.S. market. The latest stage in the Sherritt Gordon saga had begun.

NOTES

1.Neil Colvin, "A Nickel's Worth: Glimpses of People and Places," Unpublished ms., Fort Saskatchewan, Alberta: JLB Consulting., 1999, p. 21.

2.D.G.E. Kerfoot, "The Development of the Sherritt Ammonia Pressure Leach Process," Unpublished paper, p. 3

3.One of the earliest employees of the Ottawa pilot plant was Neil Colvin, who has caught well the spirit of those times: "The Ottawa pilot plant was the dream child of some very remarkable people in Sherritt, at the University of British Columbia, and at Newmont Mining in New York City. At the time, I had no idea of the significance of the technology that was emerging in the scruffy old ex-foundry populated with a kaleidoscope of characters from 25 different countries, many of whom were brilliant people with fascinating stories.

Those involved had been cast up on Canadian shores as a result of the chaos in post-war Europe. Some of their experiences during World War II were incredible while others were not for the telling under any circumstances.

There were people working in that pilot plant from all sides of the recent conflict. One of my fellow workers who had been on a North Atlantic squadron tour of duty during the second world war for four years had served on a Corvette trying to sink a Nazi U-boat. His next companion on the same project at the plant was an ex-U-boat engineer who had been trying very hard to sink ships in the North Atlantic." Colvin, op. cit., pp. 20-21.

4.Interview with Charles Hames, Fort Saskatchewan, Alberta, August 20, 1997.

5.The importance of this phase of Sherritt's research in Ottawa cannot be overestimated, as Derek Kerfoot has noted well: "Much of Sherritt's current metallurgical and product technology can be traced back to work done during the development of the ammonia leach process. Pressure leaching of sulphide ores and concentrates, using continuous horizontal autoclaves, has provided the basis for a thriving pressure hydrometallurgical process licensing business which currently offers processes for treating nickel mattes and concentrates, zinc concentrates, and refractory gold ores and concentrates." See D.G.E. Kerfoot, op. cit., p. 12.

6.See Maschmyer's article, "Comment: 35 Years and Onwards," Sherritt West, June 1989, p.2.

7.Colvin, op. cit., pp. 21-22.

8."Company News," October 1960, n.p.

9.It concluded: "Employees are requested to see that their batteries and block heaters are kept in good condition. Towing cars represents a hazard, and no matter how much care is taken by the driver of the tow truck, there is always the possibility of some damage being done to the car being towed ... Employees requesting such service from the Company will be required to sign a release before assistance will be given." See "Company News," December 1961, n.p.

10.See "Holiday Hazards," Sherritt World, Winter 1991, p.4. The same issue also provided employees with advice on shovelling snow: "If you're over 40 and healthy (or under 40 and a person who is not in good physical condition), it's all right to shovel, but take it easy. It can strain your heart... Never shovel immediately after eating. Tackle the snow before dinner or an hour after a meal." See "Who shovels the walks?," p.7.

11."Four hundred gather to wish well to 65 Sherritt optional retirees," Sherritt West, Summer 1986, p.3.

12."Company News," June 1961, n.p.

13.In the August 1959 "Company News" column of the publication "Nickelodeon," to take just one example, a detailed comparison of the company's performance over the January-June period between 1957 and 1959 is provided. Everything from sales revenue to interest and royalty tax is discussed. A detailed analysis is provided of each line item, explaining clearly the company's mineral production and financial condition: "Sales revenue was up because of higher volume which offset lower per unit return for all products with the exception of copper--which was down in volume but up in return per pound. The higher operating costs were a result of generally higher costs for labour and freight and cost of purchased concentrates."

14."Company News," September 1962, n.p.

15.Interview with Charles Hames, Fort Saskatchewan, Alberta, August 20, 1996.

16.Quoted in "Local 530 agrees to contract expansion," Sherritt West, December 1982, p.3.

17.Figures taken from John S. Sheppard, ed., Thirty Years of History and Collective Bargaining between Sherritt Gordon Mines Limited and Energy and Chemical Workers' Union, Local 530, Fort Saskatchewan (Fort Saskatchewan: Jasper Printing Group, 1984), n.p.

18.The president of the union in 1982, Gordon Hostyn, stepping down after thirteen years of active union involvement, reflected upon his experience with the company: "My first official position was on the negotiating committee, then I was elected Chief Steward. Shortly afterwards I attended the Union School in Toronto for 6 weeks ...

I've always found the company-union relationship to be good. There's no animosity. We always see reason for compromise. I don't know whether it's because of me, the executive or the company's attitude...

What am I most proud of? Getting our wage rates and benefits comparable with the rest of the industry. Another thing was getting autonomy for the union local. We are not under the control of the Americans any more." See "Gordon Hostyn passes gavel to John Sheppard," Sherritt West, July 1982, p. 2.

19.Colvin, op. cit., p. 23.

Chapter 3
From Mining to Refining:
The Challenges of Sherritt Gordon, 1954-1990

In many ways Sherritt Gordon had reached a new pinnacle in its corporate history. It was the proud owner of a large modern refinery, had engaged in an extremely successful development based upon the diversification of its resources, and had made the difficult transition from a small mining company to a large, multifaceted mining/refining corporation. In addition its extensive research activities were highly regarded throughout the industry, and indeed around the world. All of this had of course been a major gamble--but it was one which appeared to have paid off. But it was not going to be all plain sailing for Sherritt Gordon, since a multitude of challenges lay ahead--the nagging problem of a lack of orefeed, low commodity prices, management crises--that would soon bring strife to this company. As the ribbon was cut on the impressive new facility in 1954, Eldon Brown could have no idea of the difficulties that lay in store--or the way in which the company would evolve in order to surmount these obstacles. But then again his days at Sherridon, engaged in a very straightforward and relatively small-scale mining operation, could hardly have prepared him for the massive Fort Saskatchewan facility either. Once again the company was evolving rapidly, feeling its way tentatively along this new path that was fraught with hidden challenges. "Brownie" might not have known exactly where Sherritt Gordon was headed--but the company's experience to date had shown that it could adapt quickly with pragmatism to surmount most challenges.

The period of some four decades studied in this chapter reveal a company that was remarkably successful in some ventures (particularly in product diversification), but which seemed never to really fulfill its potential. As noted below, much of this was due to variables that were simply beyond its control. At the same time there were human errors made, and one gets the sense

of a corporation that was too loosely structured, with too many divisions that were not living up to their mandate. Perhaps in large measure this was due to the inability for management to shift gears from the one-dimensional mining operation to which they had long been accustomed, where Brown's larger-than-life personality had managed to hold everything together, to the complex corporate structure that emerged in the 1950s and 1960s. At the end of the day, however, Sherritt Gordon turned in a middling return on its investments--and was obviously in need of a major shove if it were to reach its elusive potential.

The retirement of Eldon Brown as Chairman of the Board in April 1968 in many ways symbolized the end of an era. Brown had been the first employee of Sherritt Gordon Mines, a company he had served loyally for 41 years. In many ways he **was** Sherritt Gordon, the embodiment of its proactive nature--in mining, exploration, financing and research. A born leader, capable of inspiring fierce loyalty in Sherritt employees, Brown had turned a small mining operation into a large and modern refining operation--and also, in his own words, into "a Canadian institution of which we can all be proud." He had filled a variety of roles with the company. On paper he had been superintendent, General Superintendent, General Manager, President, and Chairman. But these were his official titles, because in fact he was the conscience of the company, its compass and its driving force. His retirement was a major blow for the company, for which Sherritt Gordon was ill prepared.

Increased Productivity and Financial Loss: Fox and Ruttan Mines

The story of this significantly new stage in the company's history was not, however, one large triumphant saga of commercial success. The future might indeed have looked rosy in 1954 at Fort Saskatchewan--where Eldon Brown's shrewd calculations appeared to have indeed paid off--but

there were also major difficulties faced by Sherritt Gordon. The weak link in the company chain was a guaranteed supply of orefeed. Now that the operation of the company revolved around the refining of this feed, it was obviously important to have a steady supply--for a refinery can only be successful as long as it has feedstock to process. Moreover, even the best planning can often be held hostage by the vagaries of the world market--as was to prove the case with substantial company investments at the Fox and Ruttan mines. On paper, both seemed phenomenal investments by the company, with large amounts of potential feedstock located relatively close by--but neither unfortunately lived up to their potential, and in the end lost money for the company.

As can be seen from the prospecting exploits of Austin McVeigh and his discovery of the Lynn Lake property, Sherritt Gordon was consistently seeking to stay one step ahead of its mining needs. The difficulty of finding feedstock for the large (and expensive) refinery had become a concern from the first day it opened, and the company was consistently looking out for other potential mine sites to keep the refinery supplied with high quality ore. For, while Lynn Lake provided abundant supplies in 1954, it was obvious that--in order to maximize the refining facilities at Fort Saskatchewan--fresh stocks would be needed once those supplies were exhausted. Two such properties in which Sherritt Gordon invested heavily were the Fox property (discovered in 1961) and the Ruttan mine (discovered in 1968 and put into production in 1973). The Fox mine remained in production until 1985, when ore reserves (copper and zinc) were exhausted, while in 1987 the Ruttan mine was sold to Hudson Bay Mining and Smelting Company Limited following several years of losing revenue on the mine. Behind these simple summaries, however, there is a fascinating story that casts light on the precarious world of mining--and its high social cost.

The Fox mine constitutes an example of shrewd management and innovative financing, since

a loan agreement was provided by Mitsubishi Metal Mining Co. Ltd.,and Mitsubishi Shoji Kaisha Ltd. of Japan, who were looking for a guaranteed and stable supply of copper. Specifically, this meant that $US16,380,000 was advanced towards the total cost of the $25 million needed for development of the mine, and the Japanese company agreed to purchase the total output of copper concentrate from the Fox Mine at market prices for the first ten years of production. For its part, Sherritt agreed to repay the loan in the first five years of production. (The Hudson Bay Mining and Smelting Company committed itself to buy the zinc concentrate that also resulted from the refining process). A mill was constructed in 1969, and in September of 1970, Premier Edward Schreyer of Manitoba officially opened the mine. Once again the company had bought time in its ongoing search for badly needed feedstock.

Technology had advanced significantly in the prospecting business since Austin McVeigh discovered the Lynn Lake deposits after months of hiking through the bush. By contrast, the Fox mine was discovered from the air, the result of an ongoing exploration campaign, using fairly sophisticated technology to pick up data on potential mining sites. Aircraft fly at low heights above the terrain, with advanced sensing equipment trailing below the plane. The objective is to search for abnormalities in electromagnetic readings ("anomalies" is the technical term used) on the land below, since these often indicate mineral deposits. Afterwards there are follow-up missions overland by engineers and technicians who visit the sites identified from the air, and take samples to determine the size of the potential orebody. This is what happened in the case of the Fox mine, which was found to have large deposits of copper and zinc. Copper had first been discovered by a drilling expedition in 1961. Five years later further testing revealed over 12 million tons with substantial copper and zinc deposits. Until its orebody was exhausted in 1985, it was a relatively

successful component of Sherritt Gordon's commercial empire. The same could not be said, however, about the Ruttan mine which, despite solid ore resources (mainly copper), proved to be a commercial failure, and a drain on the company purse. When the mine was first discovered, however, the future looked bright indeed.

The company used a similar approach in securing funding for the Ruttan mine, located some 80 miles south-east of Lynn Lake, and until that time the largest mining operation undertaken by Sherritt. Some $US15 million was borrowed from the same sources, with guarantees of zinc concentrate production being used to pay off the loan. The balance of the financing was from the Canadian Imperial Bank of Commerce, which loaned Sherritt $27 million. Again, on paper it appeared to be a "win-win" situation, with substantial copper and zinc deposits, some of the most modern and efficient mining equipment in the world, financing assured, and a market guaranteed. Unfortunately things were soon to fall apart. Everything certainly started well enough: the property had been staked and diamond drilling started in 1969, electricity was provided from the Thompson-Laurie River line, and a 15-mile road to the highway built the following year. Sherritt brought their crews to the mine site in September 1971, and from then until the end of August 1974, some 22.3 million tons of material were removed from the pit. The mine came into full production in 1973, at a total cost of some $61 million. It was not surprising that shortly afterwards Sherritt President Dave Thomas waxed eloquent about the potential of the mine: "The size of the Ruttan orebody was limited only by one's imagination," he noted--with proven assets of 51 million tons of copper-zinc ore.[1] Unfortunately his words would come back to haunt him. Ruttan (named after Doug Ruttan, Sherrit's Chief Geologist at the time) had been brought into production in 1973 as an open pit mine, and in 1978 in light of further promising resources it had been decided to expand production by

digging underground: between 1979 and 1986, some 9.7 million tonnes were mined from underground. It all sounded too good to be true--and it was.

There were many problems in developing the mine. For example, there were difficulties with breakdowns to the mechanical shovels and trucks, a problem compounded by shortage of both vehicles (Truck availability at the sight averaged only about 55% of the need for the first few years). Outside contractors were brought in to redesign the equipment, which was not working as well as it should, and consultants were hired to improve the efficiency in the operating and maintenance areas. There was also a shortage of mechanics and miners that plagued the mine, although some skilled tradespeople were transferred from Lynn Lake. Finally, in the initial years of the operation both the grade of ore and tonnage were consistently below forecast. The Ruttan, and to a lesser extent, Fox mines simply did not live up to expectations, and in some years did not even manage to reach break-even points. The need for future (i.e. post-Lynn Lake) feedstocks was greater than ever, but despite ongoing exploration attempts, nothing loomed on the horizon to meet the need. The promise of Ruttan was quickly disappearing.

> The mine faced particularly severe economic difficulties in the early 1980s--largely the result of poor prices on the world market for copper. In 1981, for example, the first year of full production from underground, there was an operating loss of nearly $12 million. At that time, the cost of Sherritt Gordon producing a pound of copper was $1.17, while the average price for copper on the world market that year was just 90 cents per pound: clearly this was not a viable proposition. Company politics then became an important variable, with mine management at Ruttan being pitted against an increasingly troubled (and sceptical) Board of Directors. Things came to a head in 1982. Following the poor economic showing in

Sherritt board that, with time, they could turn around the financial situation at the mine. They calculated production costs for the following year at US91 cents per pound (while predicting copper prices at 9 cents higher), which meant that the mine should in theory finally make a profit. The Sherritt Board, however, was far from convinced by these calculations, and ordered the management to review their entire operating strategy: unless major savings in operating costs could be made, and fast, the mine would be closed immediately.

Significant layoffs then resulted (240 employees were made redundant) to make the mine operation more cost-effective, jobs at the mine were combined, and work output did in fact increase substantially. In addition, as a further cost-cutting measure, when copper prices fell further in the spring and summer of 1982, the mine was closed for almost four months that year to save labour costs. Despite these far-reaching measures, however, the operation continued to lose money. Writing in 1987, two Sherritt Gordon managers put the situation very bluntly: "The Ruttan Mine has achieved all the goals set for it in the last few years, except one. It hasn't made a profit. As the cost of production was steadily reduced, the copper price seemed to follow."[2] The cost of production was indeed reduced to $US0.75 cents per pound, a significant improvement by the mine workers, but the mine was simply not viable in light of the tumbling copper prices on the world market. The Government of Manitoba, fearful of the social cost of the layoffs, provided some financial incentives to encourage the company to maintain the mine, and an effort was made to do so in the mid-1980s. By 1986 the average cost per pound of copper produced at the mine was down to US0.59 cents per pound, again a considerable achievement. Indeed, the performance by workers and management at the Ruttan Mine between 1981 and 1986 was excellent: productivity increased by 80%, and the cost of producing copper was reduced to an all-time low. In normal circumstances these achievements

would have been outstanding, and the efforts of the management and workforce would have been rewarded. Yet the price of copper on the international market continued to plummet, and the mine again incurred operating losses in 1984 and 1985. As a result, later in 1987 the mill was sold, delivering a devastating blow to the nearby community of Leaf Rapids, which was largely dependent upon the mine for its economic wellbeing. A not-so-glorious chapter in the Sherritt Gordon history had concluded with some sadness. The following year the company changed its name, dropping the "Mines" reference after "Sherritt Gordon." The end of an era had arrived.

Sherritt Gordon Fortunes Wax and Wane

Once the major task of getting the Fort Saskatchewan plant established and productive had been accomplished, it was necessary to develop a strategic plan, hopefully on a long-term basis, that would regulate the company's future development. This was not to prove easy, however, given the large number of variables over which the company had remarkably little control. Sherritt Gordon had indeed reached a new plateau in its role as a producer and refiner--but it now had to learn to adapt to rapidly changing circumstances, to roll with a variety of commercial punches, and to adjust quickly if it were to survive. Life in this dual role was far more complex, and while the potential profits were far greater as a result of the refining capacity which the company now possessed, so too were the risks. It was not going to be easy, and there must have been many occasions when Eldon Brown longed for the simpler life running the mine in the Sherridon era.

While the huge Fort Saskatchewan refinery could be seen in many ways as being a logical development for Sherritt Gordon, what could not have been predicted is just what an impact it would have upon the company. Nothing would ever be the same again. A close reading of Sherritt Gordon

Annual Reports from 1954 to 1990 reveals some basic themes of the company's development during this period, as it sought to develop its potential to the full. As would be expected for any mining company, it is a history of many peaks and valleys, with years of record profits, and others of substantial losses. An analysis of the "big picture" illustrates some of these ongoing battles, and the many difficulties that they brought to the company.

An underlying issue for much of this period was Sherritt Gordon's flexibility and commercial agility, as it continually sought out new markets, while also developing various value-added products. A good old-fashioned mining company it might have been at one point in its history, but in order to survive it had to learn very quickly how to broaden its horizons if it were to survive. And broaden them it did--with everything from a variety of fertilizers to coin and commemorative medallions, passing through materials developed for the aerospace industry, and special licences for its advanced technology which it sold to clients in countries around the world. Diversification quickly became more than just a slogan at Sherritt Gordon.

The Annual Report of 1955--the first full year of operation at Fort Saskatchewan--gave a foretaste of this radically new approach. The main focus of course was nickel, and in total some 16.6 million pounds had been refined that year. There were also some useful spin-off benefits from the new operation. For example, the copper content of the Lynn Lake nickel concentrate was also recovered as a copper sulphide precipitate, and shipped to a copper smelter for treatment and subsequent sale. Moreover, given traces of cobalt in the feed, a small cobalt recovery unit was also set up at the refinery. (In time this was to become increasingly important, given the high price fetched by cobalt on international markets). In addition, a small amount of ammonia, produced in excess of the refinery's needs for the leaching process, was also sold as anhydrous ammonia

fertilizer. Finally, some 54,829 tons of ammonium sulphate (produced as a by-product in the nickel production) were recovered and sold as fertilizer.

Sherritt Gordon now began to think of other ways to maximize its traditional mining interests. The company also started to refine nickel on a toll basis for various customers, much as it had been obliged to have its own feed refined by larger refineries in the Sherridon days. In 1956, for example, it produced 152,866 pounds for customers, although this increased dramatically to 2,419,780 pounds in 1957. Yet the big success story was the performance of fertilizer byproducts, a remarkable development for such a traditional mining company. In 1965, for example, it was significant that fertilizer--and not nickel or the valuable cobalt--accounted for an astonishing 24% of sales revenue, and approximately 45% of the company's net profit. Not bad for what was in effect a by-product, although one wonders how the seasoned Sherridon and Lynn Lake mine employees must have felt upon seeing their proud mining company making most of its profits from fertilizer production. The fact of the matter was, however, that Sherritt Gordon has always shown tremendous versatility, seeking innovative solutions to crises that befell the company, and consistently seeking to take advantage of its well-honed research tradition to maximize the potential of all its resources. When viewed in this light, the careful development of the fertilizer side of its business was not therefore all that surprising a development.

Fertilizer Keeps Sherritt Gordon Afloat

The fertilizer success of this Canadian mining-turned-refining company is unusual to say the least. (Since this aspect of the Sherritt story goes into the 1990s, the chapter will touch briefly upon these developments). The Forward process used in the refining of nickel produces ammonium

sulphate, a well-known fertilizer. From the outset, then, it was known at Fort Saskatchewan that this by-product would result. Yet in 1954, when chemical fertilizer was rarely used on farm operations, there really was a small market for it. (As one former executive told the author in the summer of 2001, "We didn't have a clue what to do with it all. There was probably not a single guy at that time in the plant who could even spell it. We were miners. Then we got into the high tech business. But we really didn't know what to do with all this fertilizer)."[3]

By the early 1960s, though, new farming techniques increasingly used fertilizers, and Sherritt was ideally located to develop markets both in the Prairies and in the Pacific Northwest. By 1965, fertilizer (some 214,281 tons) accounted for 45% of the company's net profit that year. 1967 and 1973 were also bumper years--the latter year, for instance, resulted in a new company record of 396,000 tons.

Sherritt Gordon, unfortunately, was now faced with a further unexpected challenge--what to do with its woefully inadequate storage facilities. Building new, larger facilities was extremely costly--even though the potential profits (when the prices were high) were also great. In the end, new facilities were constructed. By the early 1970s Sherritt was fully into the fertilizer business, producing a wide range of fertilizers--not just urea and ammonium sulphate, but also phosphate and anhydrous ammonia. A chain of independent dealers was set up, and this became the basis for a very successful distribution system headed by Joe Fraser.

The dilemma persisted, however, as to whether economies of scale should dominate Sherritt's fertilizer production. It was obvious that more fertilizer could be produced--although the cost of storing it was extremely high. Years of adding small plants had more or less managed to meet the needs of the company, but now the company faced a major challenge. If Sherritt wanted

to compete with the leading North American fertilizer companies, it simply had to increase its existing plant, and probably too its production capacity--both expensive propositions. The fertilizer market continued to boom, however, and promised to continue doing so. What to do in these circumstances? The 1974 Annual Report noted this challenge. Sherritt had sold all the fertilizer it could produce (some 375,000 tons), and yet demand continued to outstrip available supplies. At the same time, "this is only the second year in the last few that we have received a satisfactory return on the capital invested in our fertilizer business."[4] In the end the company decided to gamble on constructing some extended storage facilities--and a new 20,000 ton ammonia storage tank was built in 1975. The gamble appeared to have paid off, with steady (if unspectacular) growth in sales. Debate continued to rage for several years afterwards, however, about the need for even greater storage facilities.

This indecision continued throughout the 1970s and much of the 1980s. A major expansion of facilities made sense--providing that the markets remained solid. In 1980 Sherritt eventually decided to approve a world-scale nitrogen fertilizer complex at Fort Saskatchewan, at an estimated cost of $360 million. This operation became known as "Fertilizer II," and was clearly a major investment in the fertilizer side of the business. Again the issue of economy of scale came into play--since Sherritt had to expand its facilities substantially if it were to compete with the major players in the fertilizer market. It simply could not afford to stand still, since its output was not competitive with the larger producers. Plans were then made to expand the company's markets to Saskatchewan, California and Mexico--and following the inauguration of the plant there was a sense of great optimism about the fertilizer potential.

In the end the new expansion--a 1000-tonne per day ammonia plant and a 900-tonne per day

urea plant--was probably a good move for Sherritt. (That said, the huge construction costs and annual depreciation of the buildings were a major drain on the corporate purse). By 1985 the fertilizer business was reporting operating profits of $44.1 million, an increase of 28% over 1984, while daily productivity levels at the new plant were an astonishing 125% of rated capacity.

Shortly afterwards, however, many in the company came to query the wisdom of the expansion, as a number of lean years for the fertilizer business throughout North America then resulted. Oversupply was the major problem, while reduced purchases from China, poor weather for several summers, and the impact of the U.S. recession were also major variables. Huge inventories of fertilizer built up, and clearly the market had reached a low point in the cycle. Into these circumstances strode Ian Delaney, the newly-minted Chairman of Sherritt, whose takeover of the company in 1990 is the focus of Chapter 5. In March of 1994 he made a spectacular move, buying up the fertilizer assets of Imperial Oil Ltd. for $408 million, and in one fell swoop making Sherritt the largest producer of nitrogen and phosphate fertilizers in Canada, and one of the largest nitrogen fertilizer producers in North America. Delaney's shrewd dealings with the new facility at Redwater (a dozen miles from Fort Saskatchewan), buying it when the market price for fertilizer was extremely low and selling it in 1997 after the price had rebounded substantially, was a masterful strategy. In the end he sold it for approximately three times what he had paid in 1994.

When Ian Delaney took over the company in 1990, the fertilizer business at Sherritt was doing reasonably well. There were problems, however. Revenue had declined 8% over 1989, and operating profit had fallen to $5.4 million, just one-quarter of the previous year. According to Sherritt executives of the time, Delaney was clearly unconvinced about the role of fertilizer in this traditional metals company. At the same time he was too shrewd a financier not to see the

advantages of the Redwater deal, bought at the low point in the Canadian fertilizer cycle. The combined operations that resulted brought staggering results in 1994: record divisional earnings of $137.4 million on $518.2 million of revenue (compared with $9.9 million and $159.6 million, respectively, for 1993). To put this in context, Sherritt fertilizers contributed an incredible 56% of the company's total revenue and 70% of its total divisional earnings in 1994.

Delaney's timing had been flawless. He had faced up to the challenge posed earlier--whether to increase fertilizer production or get out of the business--by buying out the competition, and making Sherritt one of the leading players on the continent. And he had done so at a firesale price. But then, to add insult to injury to Imperial, the prices started to soar upwards: the price of nitrogen went up $100 a tonne on the very day that Sherritt bought their facilities--and the plant now had a production capacity of 2 million tonnes of nitrogen. The gods were definitely smiling on Sherritt. Vice-President of the Fertilizer Division at that time, Bud Kushnir, put it well: "we made so much money that first year that we couldn't count that high. And the following one was even better."[5] Diversification--as seen in the case of fertilizer--had more than proved its worth.

The Challenges Continue

The basic idea of this process of product diversification was of course commercially sensible, since it meant that the company would not be as vulnerable to the whims of the market and the laws of supply and demand as had often been the case, nor dependent for its financial stability upon just one product. This proved to be a wise move indeed, since there were many lean years when this dependence upon just nickel, copper (mined at the Ruttan mine), or indeed fertilizer (increasingly important in the 1980s) could have proved disastrous.

The difficulties faced by the company during this period were many, although they were not totally unexpected, since they were typical of those encountered by mining/refining companies of a similar size. World price fluctuations of all minerals are of course well documented, and were an omnipresent concern since it made long-term planning extremely difficult. To take but one example, because of an international oversupply in 1970, the price of nickel on the open market fell from $US6.00 at the beginning of the year, to less than one-quarter of that value--just $US1.33--by December. That same year copper--sold on the basis of London Metal Exchange prices--peaked at 88 cents per pound in April, only to fall to 47.5 by December. How can management of a company plan rationally for the future when there is such a volatile swing in the price of their product?

To illustrate the wide-open nature of the mining industry, nickel--which to this point had traditionally been the mainstay of Sherritt Gordon sales--was soon replaced by copper and zinc, with a record for copper production being established.[6] Yet copper prices too, as noted above, were also volatile. Writing in 1976, the President of Sherritt Gordon at the time, David Thomas, provided the appropriate perspective to appreciate this: "Our Mining Division suffered from very low prices for copper, the major product of our mines. The average 1975 sales price was 57 cents per pound. After deducting freight and treatment costs, this yielded only about 39 cents per pound at the mine, an increase of just 6% since 1971. During this same period 1971-1975, costs in many Canadian mines ... have increased by about 100%." He concluded by noting in rather frustrated fashion that "in only one year out of four since 1971 has the price for copper increased as much as our production costs."[7] Clearly rational, balanced planning was becoming extremely difficult in view of the many difficulties that had a major impact upon the mining industry--variables which must have left the company feeling extremely frustrated.

Among other key variables affecting the company were events abroad, over which obviously the company exercised no control at all. These were of an extremely varied nature, and appeared with some frequency to make the company's life rather difficult. During the early 1950s, for example (and particularly during the Korean War), there had been a strong demand for nickel in the U.S. market (largely because of the military buildup). Following the end of the war, however, there had been a noticeable cutback in defence production--and therefore the need for nickel fell quickly. Another example of these events over which Sherritt Gordon exercised absolutely no influence were the fresh discoveries of rich orebodies--such as INCO's mines in Manitoba, while increased production in the Moa area of Cuba in the 1950s had a similar effect. The 1956 discovery in northern Manitoba of large high-grade sulphide deposits, from which nickel could be obtained cheaply, was also an obvious concern. Some forty years later, the discovery of massive amounts of mineral resources in Labrador's Voisey Bay area by INCO, if they are ever mined, will be just the latest example of cheap feedstock developed by the competition. Understandably, with huge increases in the supply of nickel, the demand can be more easily met--and of course the price goes down substantially. Such variables, that can make or break a mining company, obviously are unpredictable.

Something similar has happened with the production of cobalt, a valuable mineral byproduct from the refining process. Whatever the Canadian mining industry did to make the most cost-effective cobalt in the world, its price was effectively controlled by Zaire and Zambia, since these two countries accounted for some 60% of primary cobalt production in the capitalist world. This meant that, notwithstanding the company's best efforts to produce cobalt as cheaply as possible, it often happened that the two African countries--given their effective control of the market--could reduce the price of cobalt so that Sherritt Gordon simply could not compete.

An interesting footnote can be drawn from the Cuban situation in the 1950s, since this potential competition from nickel-cobalt facilities at Moa in Cuba is of course particularly ironic. As will be noted in Chapter 6, a significant work relationship has been developed between Sherritt International and its Cuban joint venture partner. The decade of the 1990s for the company in many ways revolved around this Cuban relationship--and indeed a case can be made that, without this joint venture in Cuba, the company would have been ruined. It is worth noting that the first contacts between Sherritt Gordon and Cuba were made some four decades earlier--although at that time they were not particularly positive. At that time Sherritt Gordon received substantial compensation for licensing agreements to use technology which it had patented--as was the case in Moa. However, the 1960 expropriation of the nickel-producing operation at Moa by the revolutionary government of Cuba also meant a loss in potential income, since Havana refused to pay any licensing fees--nor did it offer compensation, either to Sherritt Gordon or to the U.S. owners of the nickel mine there. (Given the close relations between Sherritt International and Havana in the 1990s, it is of course ironic that thirty years earlier the company had even considered legal action against the revolutionary government since it refused to pay compensation for this licensing arrangement).

Far more serious for Sherritt Gordon's balance sheets, however, was the international energy crisis of the early 1970s, which had a major impact upon the refinery, given the high cost of producing nickel from laterites. It was one thing to be faced with local difficulties, over which one could always exercise some degree of control, but quite another when these problems occurred thousands of miles away, and against which Sherritt Gordon was totally impotent.

There were many other factors which exercised a significant influence over the company's fortunes during these years. Chief among these of course were unit production costs, labour costs,

the expansion of production facilities, research and development (in which the company invested heavily), market conditions, interest charges, and competition from other products. The grade of the ore refined was another key variable, since the higher quality meant that it was cheaper to refine and obviously worth more on the market. Increased freight rates in the first two decades of the refinery's life were a major blow, since as Eldon Brown noted in 1959: "freight accounts for approximately 25% of our total operating costs and the recent 17% freight rate increase will cost us approximately $500,000 a year."[8] Strikes, both in Canada and abroad, also had a negative impact (a prolonged steel strike in the United States in 1959, the rail strike in Canada in 1973, and several strikes by Vancouver longshoremen in 1966 and 1969, all caused the company much grief, since Sherritt Gordon had to postpone sending product, resulting in a significant drop in cash flow. In the case of the 1969 strike, the company was also forced to pay for increased storage, handling and interest charges as it waited out the strike to export its products). For several years the annual reports also emphasized the shortage of skilled labour willing to work in the more remote Northern communities, which therefore made it difficult to open up new orebodies as quickly as the company had wished. Finally, the issue of increased government taxation on mining companies' "windfall profits" understandably was poorly received by mining companies, which claimed that the Canadian government did not appreciate the perilously cyclical nature of their industry.

The value of the Canadian dollar in relation to its U.S. counterpart also entered into the equation, with a weak Canadian dollar obviously being good for the export business. (Also important--in light of extensive purchases of Australian feedstock for so many years--was the revaluation upwards of the Australian dollar against its U.S. counterpart in late 1972). In the 1950s and 1960s, it is worth noting that most of Sherritt Gordon's products were exported, so this was an

important factor. In fact the company had an extraordinary sales record, exporting its various products and services around the globe. Eldon Brown put this clearly in perspective as early as 1961: "Sales of our products in Canada were higher in 1960 than in 1959, but we remain completely dependent upon the export trade, with 96.5% of our sales income coming from export sales. Our products are sold in some twenty-eight countries as compared to twenty-five in 1959."[9]

As mentioned earlier, one of the constants that reoccurs with what must have been alarming frequency concerns the need for the company to stay at least one step ahead of dwindling mineral resources, in order to provide feedstock for the refinery. This was to prove the single most important reason for the company's poor performance in the late 1980s. An ominous note was sounded by Brown in his 1966 report, when he noted "it is unlikely that the mine at Lynn Lake will again be able to maintain the annual tonnages mined and milled during the past seven years."[10] To fill this vacuum Sherritt Gordon, in the Austin McVeigh tradition, engaged in widespread exploration programmes throughout this period, although in general with disappointing results. Almost every year throughout the 1970s and 1980s the company's annual reports talk of ongoing (and costly) exploration work as Sherritt Gordon personnel flew over selected areas in Manitoba and Ontario seeking promising sites that might be worth drilling. Significantly, exploration efforts were not limited to traditional mining areas in Manitoba, since Sherritt crews also sought out mineral deposits in a number of other areas, including Nova Scotia and Saskatchewan, New Caledonia, Indonesia, Australia and Guyana. Invariably the reports mention how in follow-up work the most promising areas would be drilled, but just as regularly the reports end with the depressing annotation that "nothing of commercial importance has been found." And unless something "of commercial importance" were to be found, and soon, Sherritt Gordon would continue to face major difficulties. Moreover, as was shown by

the example of the Ruttan mine, even owning a large orebody provided no guarantees for the company's financial health either--and could also prove problematic.

To a certain extent Sherritt Gordon exchanged one problem for another, resolving the problem of declining feedstock from Sherritt mines by obtaining stock from abroad (largely from Australia), when it was available. Yet there was no consistency in this approach, and this rather ad hoc manner in which feed was contracted--usually on a yearly basis--obviously augured poorly for steady growth. Put simply, the company was living from year to year, searching desperately for feedstock to keep its huge Fort Saskatchewan operation going. The 1974 report, for instance, talks in stark terms about the low production rates resulting from "a continuing decrease in nickel concentrate and a shortage of refinery feed material from other sources."[11] This, combined with low production at Lynn Lake--which was 30% below forecast--and poor results in the grade or ore at Ruttan Mine, must have been extremely disconcerting. The following year's report is even more troubling in its reference to the company's mining operations. The company operated three mines at the time. Of these the Fox Mine was operating steadily, although a worrying note was sounded: "No new ore was discovered during the year." It also mentioned that "there now appears to be no immediate prospect of finding additional ore at the Fox Mine."[12]

The new Ruttan Mine, as noted in an earlier section, was also causing Sherritt Gordon major concern. Not only was there lower than expected feed grade being sent to the refinery, but also the open pit area of the mine was plagued with a lack of available equipment. Most serious of all, however, was the financial bottom line of operations at Ruttan. President David Thomas (who had replaced Eldon Brown in 1967, stated clearly the depressing scenario: "The cash profit for the year at Ruttan was barely sufficient to cover interest on the Ruttan loan and there was a net loss on the

operation, after capital write-offs, of over $4,000,000."[13] Finally, he noted the desperately poor return on the old warhorse of the company's mines, Lynn Lake. For several years production had been falling at the old mine, but the situation had never been as critical as this: "Production in 1975 fell below even the uneconomic level of 1974 while costs continued to escalate ... The overall poor production performance in 1975 combined with the continued inflationary pressure on mine operating costs resulted in a cash loss on the Lynn Lake Mine of over $4,000,000."[14] Within a year Lynn Lake was closed, with the result that the refinery was now totally dependent on outside feed. This was clearly a precarious situation, with the company living from year to year as it searched desperately for a steady supply of feedstock. The company was thus faced with the prospect of having an expensive plant functioning extremely efficiently in Fort Saskatchewan, but if it were not provided with material to refine, the company was clearly losing the battle to survive.

The Doldrums of the Late 1980s

"Net earnings in 1989, while below the record levels of 1988, provided a satisfactory return on shareholders' equity." These opening words to the 1989 Annual Report of the company of Charles Heinrich, President and CEO since the retirement of Russ Latham in early 1990 and Edward Donegan, continuing Chairman of the Board, were in fact tempting providence. Both men would find their relationship with Sherritt severed just a few months later, largely the result of shareholders' discontent with the company's direction. Donegan and Heinrich predicted a "continuation of the reduced profitability experienced since mid-1989," a position which for many Sherritt-watchers was clearly not sufficiently proactive. The 1989 report noted a $20 million drop in operating profit from the Metals Division, and also referred to uncertainties about feed material in 1990--the continuing

problem. In fact the only division of the company that reported higher earnings was Fertilizers. The company tried to convince shareholders that it was solidly in control, but its management jargon was hardly convincing. How exactly could the following inspire shareholders that management had a firm view about future directions: "During 1989 executive management reviewed operations for adopting a quality focus to the operation. A foundation has been laid to commence implementation of a high quality improvement process"?[15] They might boast that "the Company's financial position was stronger than it has been since 1980,"[16] but there were many sceptics, and it was precisely on these people that Ian Delaney was banking when he led his hostile takeover bid in 1990.

In actual fact, the company was in crisis. True, the fertilizer section continued as a very stable performer (although revenue in 1990 fell 8% over the previous year), but the overall corporate picture was far from convincing. In 1990, for instance, it was painfully obvious precisely to what extent the company was underachieving. The metals situation was particularly grim: revenue from metals fell to $174.6 million (less than one half of what it had been just a year earlier); nickel production had fallen 16%; total revenue was down from $545.89 million (1989) to $345.25 million; operating profit from continuing operations fell from $73.9 million to $13.13 million in 1990; working capital was just over one-half of what it had been in 1989; operating profits were down 88% (to just $5.4 million, compared with $45.5 million; operating cash flow had fallen from $102.87 million (1988) to just $1.38 million in 1990; earnings per common share, which had provided $2.27 in 1988, and $1.19 a year later, now had lost $1.29; and finally the company had recorded a net loss of $32.38 million, as opposed to a profit of $32.18 million in 1989.[17]

An overview of the period from 1979 to 1990 reveals a picture of a company with diversified interests that was going nowhere fast. There had been some good years--and 1988 stands out as one

of these--but the company was in a steady downward spiral, consistently underperforming with its three essential components--fertilizers, metals, and special products--all in a tail spin. True, they were all making money--but each one of them had peaked in 1988, falling in 1989 to levels that were not far removed to profit levels of 11 years previously, and to disastrously low levels in 1990:

Operating Profit (1979, 1989, 1990, in $million)[18]

	1979	1989	1990
Fertilizer	$17.4	$21.9	$5.3
Metals	$34.3	$45.4	$5.3
Special Products	$ 7.0	$ 6.4	$2.3

The end of the 1980s thus saw the company, if not in crisis, then at least clearly falling far below its potential. On June 1, 1988 it officially changed its name from "Sherritt Gordon Mines Limited" to "Sherritt Gordon Limited." The dropping of the word "Mines" from the company name--which it had worn with some pride for sixty years--illustrates well the identity crisis in which it now found itself. Sherritt was floundering, unsure as to its future direction, reacting to circumstances rather than charting a clear future direction. There was a sense that management was unclear how best to tackle the doldrums faced by the company. The metals division, with a clear problem in finding feed, was particularly suffering. Perhaps the empty words about the company's financial stability served only to infuriate large shareholders, who wanted Sherritt Gordon to adopt a more forceful and proactive approach. The management continued to dither, hoping to last out the squall--but sound found itself swept up in a heaving sea, soon to be tossed out with little ceremony. A radically new approach was about to be implemented.

An Overview of the Company's Evolution

Sherritt Gordon had developed fairly well over the years, particularly in searching out markets for the valuable byproducts of the refining process, and in its excellent research programmes actively carried out at Fort Saskatchewan. To a large degree it was because of its ability to adapt to these many challenges, seeking out niche markets, developing new products, strengthening its impressive research and development potential, and in general being remarkably flexible. Problems there clearly were, however, and it was obvious as the 1980s drew to a close that the company had been drifting listlessly for several years. Indeed the urgent tone of Ian Delaney in his first report to shareholders in 1990 repeated concerns that had been made fully two decades earlier: "Our first priority is to rectify the shortage of feedstock for our nickel refinery ... In 1990 the refinery was shut for two months due to a lack of feedstock and operated through the year at only 71% of capacity ... Our goal, however, is not only to fill the refinery to its present capacity but to secure long-term refining contracts which will allow us to expand the existing facility."[19] What he didn't say--and perhaps he didn't need to--was that, without that feedstock, Sherritt Gordon would soon be bankrupt.

Looking back over the period between the opening of the Fort Saskatchewan refinery and the Delaney takeover of 1990, there were several crucial periods during this time when Sherritt Gordon faced major storms and--more or less--weathered them. The 1975-77 years represent one of those tough periods, when it was obvious that the company was facing a profound crisis. In 1975, for instance, the price for copper had dropped to a point where it could not be mined at a profitable rate (down to an average of 57 cents per pound, compared to 80 cents in both 1973 and 1974);zinc was up only one cent per pound on 1974 prices; and the nickel and cobalt markets were completely flat; the mines were also disappointing--with the Ruttan Mine being particularly uneconomical, and the

Lynn Mine causing a $4 million loss; exploration had another poor year; the grade of ore mined was low; and to add insult to injury, there was insufficient concentrate acquired from Australia. As President David Thomas noted in one annual report: "The outlook for 1976 is rather bleak. If the copper price does not improve, our Mining Division will be fortunate enough to achieve a cash break-even position for each mine. If we cannot achieve this position at Lynn Lake we will have to close the mine. To meet operating restraints and market conditions we are cutting back on production at both Ruttan and Fox mines."[20] In June of 1976 the Lynn Lake Mine was indeed closed. This closure, in combination with a difficulty in sourcing sufficient supplies of feed from Australia, meant that the Sherritt Gordon management was now totally dependent on outside feedstock, and badly needed to find replacement sources.

The early 1980s were also a period of difficulty for the company, a fact made all the more noticeable since 1979 had been the company's most profitable year to date, with net earnings of $40.96 million. These fell drastically in 1981, with net earnings (before writing off extraordinary or unusual items) of just $2.79 million, a major reversal of company fortunes. The following year also posted a loss. The cover of the annual report said it all: "1981 was not a good year. Sherritt's mining division suffered serious setbacks, and incurred a severe loss." In early 1982 the company laid off about one-third of the work force in the mining division; the Ruttan mine produced only 78% of the forecast feedstock (which was not of good orestock); the Fox mine fared little better, with only 85% of production forecast. Meanwhile copper prices fell to a 50-year low, with the result that mining operations lost some $25.5 million. Were it not for the refinery (with a profit of $19.5 million and the impressively consistent fertilizer plant, with profits in 1991 of $21.9 million, the company would have been in poor shape indeed. By 1989, shareholders were not so patient, and the

hostile takeover bid ended in the ouster of the management, and the appointment of Ian Delaney.

Throughout the 1980s, it was obvious that the company was performing below par, and the worst of it was that as the 1990s loomed on the horizon, there was no apparent end in sight to this listless drifting. In part this was because of matters beyond its control. It was also true, however, that mining operations were in a sickly state, desperate for feed, and with investments made in various projects that were losing money. The mine-deepening programme at Ruttan, for example, announced with flair in 1984 at an estimated cost of $30 million, was one investment that never paid off. It is little wonder then that the 1983 report should emphasize the fertilizer business of the company--by now the largest single source of sales revenue, which for the past few years had accounted for between 20 and 30% of sales revenue. (The same report noted that mining operations had posted a loss in 1983: "This is a substantial improvement over the $13,223,000 operating loss recorded for 1982," it noted in a desperate search for a positive spin).[21] Many shareholders, however, remained unconvinced.

The remainder of the 1980s basically continued these trends: the fertilizer side of the business posted consistent profits, the metals division maintained steady if unspectacular growth, while the mining operations showed steady losses. Following the death of David Thomas in 1985 (he had been President and CEO from 1967 to 1985) the situation deteriorated quickly. His replacement, Russ Latham (who remained until early 1990), introduced a realignment in the management structure, and oversaw record profits in 1988--due largely to the rebound in commodity prices. Net earnings that year increased from $5.8 million in 1987 to an impressive $56.4 million in 1988. As noted earlier, the mediocre results for 1989 and 1990, the desperate need for feed for Fort Saskatchewan, and the sense of a lack of direction all augured poorly for the future. It was clearly

time for a fundamental realignment of the company.

The first chapter detailed several occasions when mining cycles dealt devastating blows to Sherridon, as well as other calamities that were resolved only by a combination of good luck and the perseverance and tenacity of Eldon Brown. His successors, and in particular David Thomas, did a competent job in keeping Sherritt Gordon afloat, although they can be criticized for not adopting a sufficiently proactive stance on many matters.

But now Brown was gone, and the company was drifting aimlessly, its potential clearly not being realized. And it was at this point that there began one of the most dramatic episodes in the company's history as a brash financier, "the smiling barracuda of Bay Street" as he was sometimes termed, sought to take control of the company. The question everybody was asking in the mining community: how would he do it? Clearly, the company was in for a rocky ride.

NOTES

1."Story of Ruttan Mine (Excerpt selected from Dave Thomas' [President of Sherritt Gordon] Speech Given at the 46th Annual Convention of the Prospectors and Developers Association," reprinted in "Sherritt Gordon" (a history of the company from 1923 to 1978), p. 16

2.Peter H. Goodwin and Kenneth D. Ball, "Sherritt's Ruttan Mine Meets the Challenge," Paper presented at the 89th Annual General Meeting of the Canadian Institute of Mining and Metallurgy, Toronto, May 1987, n.p.

3.Interview with Bud Kushnir, former Vice-President of the Fertilizer Division, Fort Saskatchewan, June 7, 2001.

4.Report of the Directors, Sherritt Gordon Mines Limited, Annual Report 1974, p.5.

5.Interview with Bud Kushnir, June 7, 2001.

6.Something similar happened in 1973, when the price of copper rose from 47 cents per pound in January to close the year at 91 cents. Nickel sales brought in $28.07 million that year, just over half that earned by copper ($53.06 million). Data taken from "Highlights of 1973," Sherritt Gordon Mines Limited Annual Report, 1973," p. 4.

7.David Thomas, "Report of the Directors," "Sherritt Gordon Mines Limited, 1975 Annual Report," p. 2.

8.Eldon L. Brown, "Report of the Directors for the year 1958," "Sherritt Gordon Annual Report, 1958," p. 3.

9.Eldon L. Brown, "Report of the Directors," "Sherritt Gordon Annual Report, 1960," p. 3.

10.Eldon L. Brown, "Report to the Directors," "Sherritt Annual Report," 1966," p. 5.

11.Sherritt Gordon Mines Limited, "Annual Report 1974," p. 10.

12.Sherritt Gordon Mines Limited, "Annual Report 1975," p. 6.

13.Ibid.

14.Sherritt Gordon Mines Limited, "Annual Report 1975," p. 8.

15.See "Sherritt Gordon Limited, Annual Report, 1989," p. 17.

16.Ibid., p. 20.

17.Ibid., pp. 4, 12,27.

18.Information from "Sherritt Gordon Limited, Annual Report, 1988," p. 27, and "Sherritt Gordon Limited, Annual Report, 1990," p. 27.

19.Ian W. Delaney and Bruce V. Walter, "To Our Shareholders," "Sherritt Gordon Limited Annual Report, 1990," p. p. 2.

20. David D. Thomas, "Report of the Directors," "Sherritt Gordon Mines Limited, 1975 Annual Report," p. 3.

21.David D. Thomas, "Report of the Directors," "Sherritt, Annual Report, 1983" p. 1.

Chapter 4

Innovation and Development: A Matter of Survival

Writing in March of 1957, Alan Gallie, a longtime executive with the company, noted concisely: "With the development of the Forward process Sherritt Gordon had eliminated the need for a smelter at the mine--concentrates would be turned into metal at a chemical plant on the prairies situated close to natural gas."[1] This succinct summary of a major breakthrough in scientific research undertaken by Sherritt scientists, together with University of British Columbia professor Frank Forward, is a masterpiece of understatement. In fact, the company developed a radically new process, the result of years of research by Sherritt Gordon scientists. It was perhaps the first major step in a commitment to research and development that the company has pursued ever since--one that far surpasses the size of the company, and which can be seen at key points throughout Sherritt's history. The same commitment to research and development can be seen following the major division of company assets in 1996, as parts of Sherritt were separated into wholly independent companies such as Dynatec,[2] Westaim (analyzed later in the chapter), and UMEX.[3] While separate from Sherritt, they still are dependent upon former Sherritt researchers, still pursue many of the functions undertaken by the company for many years, and are still driven by the original Sherritt commitment to quality research and development. In all the research that has been produced by this talented pool of scientists and engineers by the 1990s had led to the development of over 100 new products and 300 inventions, and some 2,600 patents--an extraordinary record for a company the size of Sherritt.

This chapter starts with an analysis of the research and development of this early stage, and continues to the present, analyzing the nature of scientific work still eagerly pursued at the Fort

Saskatchewan site--although mainly at the companies that have been "spun off" from the original Sherritt company. (Most of the Sherritt International research per se being undertaken nowadays revolves around the maintenance and development of feedstock from the Moa mine in Cuba). It is an unusual record, since extraordinary emphasis has been placed on this facet of the company's work throughout its history--and is still very noticeable in the companies that have been derived from Sherritt in recent years. Perhaps in no small measure it is the legacy of Eldon Brown's determination to seek innovative solutions "on the fly" as new challenges--and seemingly insoluble problems--emerged. Also true, however, is that value-added products were absolutely essential if this medium-sized mining company was to survive. (And, after the actual mines owned by Sherritt were exhausted, there was simply no alternative other than to seek how best to exploit the feedstock being delivered to the plant).

In all there are three clearly discernible periods of "R and D" at Sherritt: the early years up to and including the commissioning of the Fort Saskatchewan plant (largely dealt with in Chapter 2); the late 1960s to the mid-1990s (in many ways the golden years of research and development for the company, particularly as the company aggressively pursued contract work abroad while developing several innovative products at the plant); and finally the post-1996 period, as the company divested itself of the vast majority of these research interests, while encouraging its former employees to pursue their research interests in the new companies that derived from Sherritt interests. Together these three eras constitute a remarkable history of research and development that is unique anywhere in the world.

An insightful article into the importance of research and development at Sherritt some thirty years ago illustrates just how different the company was in this regard: "An unsuspecting visitor,

familiar with the high smelter stacks and desolate landscapes traditionally associated with the large scale refining of sulphide ores, would not recognize this plant for what it is. The tall stacks are non-existent, replaced by huge steel and concrete 'agrodomes' that store and protect the plant's by-product fertilizers ... Every detail of the foregoing--the plant's freedom to locate 800 miles from its supplying ore bodies and closer to its markets; the absence of pollution around an industry notorious for its ecological destruction ... the very existence of one of the world's best equipped and staffed metallurgical laboratories--internationally honored within its particular discipline; and the Bay Street acknowledged health and financial status of the company--is the direct result of Sherritt Gordon's long-term, continuous emphasis on in-house R and D."[4]

Much of the reason behind the success of Sherritt Gordon's impressive research and development record, unprecedented for a medium-sized mining and metallurgical company, stems from the input of Vladimir Mackiw, who had been hired to work in Sherridon, and had been one of the principal representatives of the company in the Ottawa chapter of the firm's history. He never left the company, and in fact continued working as a consultant for Sherritt until his death in February 2001. In 1977 J. Hugh Faulkner, the Canadian Minister of State for Science and Technology, asked Sherritt to define its approach to research. It fell to Mackiw to explain the rather unorthodox company philosophy of Sheritt Gordon: "An active research group needs the individual challenge and intellectual stimulation which comes usually from diverse, often controversial, viewpoints within the group ... The daily work in most industrial and government organizations requires the same operations by the same man day after day. But, this does not apply to research organizations. The research men, the creative inventive personnel, may know what they intend to do tomorrow, but they are quite uncertain regarding their daily tasks--not overall objectives--a month

hence, because what they do then depends somewhat on what they find out in the interim. Creative people are the innovators, the instigators of change. They are defiers of precedent and experience; they are the seekers of new paths and new ideas. This is their job."[5]

As this chapter seeks to show, it was Mackiw's example, and the innovation of a skilled team of scientists, engineers and metallurgists who established the reputation of Sherritt Gordon around the world--and did so precisely by being "defiers of precedent and experience." Fully a quarter of a century later scores of researchers have continued to develop this tradition at Fort Saskatchewan. It is one that transcends the size of the corporation, and which is an essential facet of the company's identity. It was also an approach that was badly needed if the company were to survive.

It is worth dwelling a little upon the career of Mackiw, since in many ways it parallels that of the company itself. He joined Sherritt in the late 1940s, shortly after arriving in Canada from the Ukraine and undertaking postgraduate studies in German and Belgian universities. The timing was propitious: he was keen to find secure employment, and Sherritt was about to embark upon some ground-breaking research, analyzing the ammonia leach process for nickel obtained in their Lynn Lake mine. Sherritt-Gordon took a chance when it hired Mackiw, but Eldon Brown clearly appreciated his imagination, scientific curiosity, and personal drive. Among the many East European immigrants who came to work with the company, he became their undisputed leader, encouraging and bullying them occasionally to get work finished, but always there to lend a helping hand.

In essence the company--under the guidance of UBC professor Frank Forward--was seeking to find a new way to leach nickel, copper and cobalt in a way that made the traditional smelter and electrorefinery approach unnecessary. (It was also environmentally friendlier--since in the traditional manner roasting released large amounts of harmful sulphur dioxide into the atmosphere). At the

small pilot plant set up in Ottawa, Mackiw showed that copper could be precipitated from the leach solution. This was a major breakthrough, allowing metals to be obtained through pressure leaching in a far cheaper fashion. Following his successful experiments in the Ottawa pilot plants,[6] and his longstanding role as scientific trouble-shooter for the company, Mackiw was named manager of the Sherritt Research Division in the Fort Saskatchewan refinery. Later he was appointed Vice President and finally Executive Vice President of Sherritt. In many ways he never left the company, since even after his retirement he remained as a consultant for Sherritt--in all being associated with the company for an astonishing 52 years. Perhaps no more fitting tribute could be made to acknowledge his contribution to Sherritt than the naming of the Mackiw Materials Centre of the Westaim research company at the Fort Saskatchewan plant in 1991.

Vladimir Mackiw was a gentle, soft-spoken man, whose manner belied his impressive academic record--some 50 publications and the holder of over 45 patents. Clearly his contribution to the research interests of the company was crucial. Early research undertaken by company scientists, engineers and metallurgists paved the way for solid commercial growth for Sherritt Gordon. First, it allowed the company to process nickel and cobalt in a way that had not been previously implemented on such a scale. Secondly, it allowed the company to diversify its income by licensing this technology to treat nickel mattes and concentrates, zinc concentrates and refractory gold ores and concentrates. (Indeed so successful was this technology that it was licenced worldwide, from Cuba to Indonesia, the Philippines to Australia). And finally, Sherritt researchers, based upon their work on nickel nucleation and reduction with hydrogen from solution, developed a number of specialty composite powders which were sold for a variety of aerospace and other specialized applications. The harnessing of this new technology thus led the company to pursue a

number of lucrative spin-off products in areas that Eldon Brown and the management of his day--despite their own innovative bent--could not have even dreamed of.[7]

In many ways Vladimir Mackiw was an appropriate symbol of the commitment to innovation and invention--and to resolving apparently insurmountable difficulties--that has been a common denominator of the Sherritt story. Indeed, whether it be the move of the entire town to Lynn Lake from Sherridon, the application of metallurgical discoveries of Forward and Mackiw, or the daring series of investments in Cuba in the 1990s by Ian Delaney, this determination to adapt (ultimately in order to survive) has been a common feature of Sherritt activities since the company's history. Given the company's medium-sized operation, and the overwhelming challenge afforded by the competition of far larger companies in Canada and the United States, it simply had to evolve, developing value-added products--or else it would fail. And, when viewed from a detached perspective, the odds were certainly in favour of the (far larger) mining companies swallowing up medium-sized operations like Sherritt. This commitment to scientific research and development--in essence to provide value-added products from the mining business--is a central thread which runs throughout the Sherritt story. Indeed any visitor to Fort Saskatchewan nowadays cannot help but be struck by the amount of research and development being carried out in this small city of 13,000--where there must be more people on a per capita basis involved in R and D than in any comparable Canadian community.

Bob Fraser, hired fresh out of university in September 1960, has explained with clarity the sense of community, of scientific solidarity that existed in those early days at "the Fort". He was probably the only Canadian working in the research group at Sherritt, and remembers with great fondness the bonds that existed among the group. Christmas parties would start in mid-November,

continuing until early January, he recounts--leading him to develop an appreciation for good European food and wine! The research group bonded well, and there was a great sense of companionship.. "You'd go back at night, and the labs would be as full as they were in the day... You didn't want to let your team down, and so you worked hard on your projects."[8] There was a tremendous sense of self-discipline, accompanied by pride and a sense of achievement in research at that time.

This commitment, at times verging on a monastic vocation, had been formalized in 1954 with the establishment of the Technology Division in Fort Saskatchewan, to which the staff from the Ottawa pilot plant were transferred. And while Sherritt Gordon was never a particularly large player in the Canadian mining industry, at the same time it is recognized around the world for its pioneering research and development activities. Indeed over the years Sherritt staff have registered hundreds of patents, have commissioned plants on every continent, and their products have touched hundreds of millions of lives. But how, and why, did this original commitment to high quality original research become so important for the company? And how has this process evolved, allowing a small-sized Canadian mining company to become a recognized giant in research pursuits in a number of areas?

The Diversity of Sherritt Products and Services

Canadians probably have little idea how many of Sherritt-made or -licensed products play an important role in their lives. Food grown with Sherritt fertilizer is an obvious example. Less widely known perhaps is the stainless steel produced largely with nickel which is used in everything from sinks to cutlery and cars. But how about the many uses of cobalt? Powerful magnets--

employed in a number of engineering functions--or extremely sophisticated composite metal powders employed in the aerospace industry are just two examples of high-tech applications of Sherritt products. (The nickel/graphite abradable seals that are sprayed on turbine engines in aircraft are particularly important, since they ensure close clearance between rotating and stationary components, therefore ensuring maximum efficiency and reducing fuel consumption). Sherritt in fact has produced components for engines made by Pratt and Whitney, General Dynamics and Rolls Royce). Governments have also sponsored specific Sherritt research: "Research on a shared-cost basis with the Department of Defense Production and later sponsored completely by the Defense Research Board and the United States Air Force was undertaken on dispersion strengthened nickel alloys for aircraft turbine engines. DS nickel, a product of this work, is still flying today."[9] Composite powders are also used on a variety of cutting edges (such as knife blades or cutting edges in general), and even on sliding electrical contacts. And finally the chemical coating of pipes that are used in petrochemical processing of a number of plastics prolongs their work life considerably.

Likewise the lithium-ion batteries found in computers and mobile phones, and a variety of rechargeable batteries now produced by Umex Inc. in Fort Saskatchewan, trace their origins to research carried out for many years by Sherritt. More mundane, but just as important in their own way, are the omnipresent coins, nickels, quarters, "loonies," and "toonies" also made from Sherritt material, employing Sherritt technology--and now part of Westaim. In short, from the licensing of company technology around the globe, to the production of coins and coin blanks for dozens of national mints and companies, from the development of cobalt-samarium powder (used in high-strength permanent magnets) to wear-resistant materials used to prolong the life of heavy equipment parts, Sherritt researchers have for decades been in the forefront of the practical application of their

products. Quite a distance from the early days when life revolved around the rather straightforward extraction of copper and nickel from a relatively small mine.

But even in the best of circumstances scientific research, based upon healthy doses of inspiration and perspiration, occasionally also needs a stroke of something less obvious--luck. And, while Sherritt research appears to have been driven by necessity, it also benefited from good fortune. The process of separating nickel from cobalt, and the subsequent process of recovering a high grade cobalt powder, was clearly the starting point for this research: it ensured the survival of the company. Yet this metallurgical breakthrough led to other problems, since nickel powder is not suitable for many foundries. This in turn obliged Sherritt researchers to experiment further, eventually coming up with methods to sinter nickel powder into briquettes. Once again value-added properties were the direct result of the application of solid scientific research. But a refinement of this technology led to a further breakthrough--the development of nickel plate. The process is straightforward: "The powder is compressed into a sheet between rollers, is then hot-rolled, followed by a cold-rolling operation. The resulting nickel plate has the same density as bulk nickel--even though the metal is never melted during processing."[10] The production of fertilizer (a byproduct of the refining process itself) was also a useful discovery--particularly since there were many years when nickel prices on the world market were disastrously low, and fertilizer helped to keep the company solvent. Much of these spinoffs could be successfully identified, based upon solid scientific research; but a quotient of good luck was also much appreciated--and was often present.

The Coinage Story

A case in point is the development of coin production. The use of nickel plate led to an

extremely profitable discovery for the company, which for many years has eagerly developed the market for coin blanks. What is not widely known, however, is how Sherritt came to enter the coin industry in the first place. The original idea had been to produce nickel in strip form that would be used in the booming market of radio tubes. At the time, given the popularity of radios, it seemed like a good idea. Unfortunately, the discovery of transistors shortly afterwards revolutionized radio design, and tubes rapidly became obsolete. What to do, therefore, with the expensive new equipment that had only recently been purchased, and the nickel strip that was being produced? The unlikely combination of a major labour dispute at the British docks and a shortage of five-cent coins in Canada soon resulted in a lack of nickel blanks to strike coins at the Royal Canadian Mint in Ottawa. A combination of serendipity, courage, tenacity and innovation were again called upon.

Sherritt was surprised to find that until this time Canadian nickel had been exported to Britain, where it had been refined, rolled into strip, punched into blanks, and then shipped back to Canada. Why couldn't Sherritt do all of this at Fort Saskatchewan? This was simpler said than done, however, for the company had absolutely no experience in doing so--and only a rudimentary idea as to how it could be carried out. Assistant Director of Research Tad Benz had strongly supported the development of continuous rolling to produce nickel strip from powder. (It is therefore very appropriate that his son Mark is currently President of Coinage Products at the Westaim Corporation in Fort Saskatchewan, another cross-generational Sherritt link). A small delegation of Sherritt managers immediately headed to Ottawa to make their pitch to the Royal Canadian Mint, taking with them their rudimentary blanks which had just been punched out by hand. "They weren't exactly the same size," Gallie remembers--and they were a little less than symmetrical."[11] Bob Fraser, a young metallurgical engineer was entrusted with the task of taking them by train across Canada for the

meeting. And, while they made the way safely to Ottawa, they were lost for a while after they had been stored at the Chateau Laurier hotel. Fortunately they were located on the hotel's loading dock after a madcap search, and the Mint must have been pleased (or desperate), for it placed an initial order for 100,000 pounds of nickel blanks.[12] This then led to a new problem for the company, however, since the plant (which Sherritt had still to complete) only had a capacity of 20,000 pounds a year. Clearly this presented management with a major dilemma... Was it really worth jumping into the fray and gearing-up on such a large scale, particularly when they had no experience--and when the Royal Canadian Mint might well decide to go back to its original suppliers? After much soul-searching Sherritt management decided to take a chance: production was set up on round-the-clock shifts, and the first deadline was met with literally only hours to spare. As a result of this experience a full-scale rolling-mill was then installed by 1961, and coinage became another arrow in the Sherritt quiver.

Two developments led to Sherritt developing its pressing facilities even more intensively. The first was the rapid increase in the price of silver--then commonly used for coinage--around the world. As a result it became necessary for many countries to produce coins using a cheaper metal--and nickel (which Sherritt had mountains of) was just what was needed. A series of major contracts then ensued. The second factor was an invitation by several governments to Sherritt to take the pressing of blanks one stage further, and produce actual coins for them. Many countries approached initially had informed Sherritt that they were not interested in purchasing blanks, since they didn't have mints of their own, and therefore had to contract out to the limited number of mints in the world. However, if the company were to obtain a coining press, they might well be interested in purchasing finished coin from Sherritt. In 1966 the management agreed to do this, and that year the

Sherritt Mint came into existence--the first contract being 5,000 nickel medals for Fort Saskatchewan. Two years later Lebanon placed an order for 3,000 coins, followed by Syria which wanted 11 million. Dozens of countries have since followed suit, with coins being produced for the Philippines, El Salvador (58 metric tons of five centavo coins), Yemen, Trinidad and Tobago, Iraq, and Honduras, to name but a few. Nickel-Bonded-Steel (N-B-S, an electroplating process which adds a nickel coating alloy-bonded to steel) blanks were also produced for Colombia and Ecuador. After the division of the company in 1996, the coinage division passed completely to Westaim, which is now producing euro blanks for several countries in Europe, and in 2000 ventured into the business of producing copper, nickel, and aureate-plated aluminum for coins (which is even cheaper to produce, and lasts longer). In all Sherritt-Westaim technology has produced coin blanks for more than 100 denominations from over 40 countries, an astonishing track record. It is somewhat surrealistic to take a stroll through the Mint at the Westaim plant nowadays--seeing the primitive old equipment in one section of the plant where coin blanks had been made one by one, and nearby the state-of-the art computerized facilities now there, spitting out blanks in industrial quantities for a half-dozen currencies. Quite a journey in four decades--and a profitable one at that.

One should not get the impression that it has all been plain sailing, however, since during the four decades that the blank and coin business has been in operation at Fort Saskatchewan there have also been some decidedly lean times. The heady days of the 1960s until the early 1970s were clearly a successful period, and by the mid-1970s the coinage division was contributing respectably to the Sherritt bottom line. The first half of the 1980s saw a downturn, with the future of this section continually in doubt, largely because of the low profit margins resulting from competition with various government-subsidized mills elsewhere. By 1986, however, things had turned around--to

a large extent because of ongoing research into aureate (or gold-coloured) coating, which subsequently provided the material for blanks for the Canadian loonie and Dutch 5-guilder coin. The early 1990s again witnessed some tough times for the coinage division, until the Chinese Bank Note Printing and Minting Corporation asked Sherritt to install a N-B-S plant at the Shanghai Mint. In 1997 the Brazilian Mint asked Westaim to set up a facility to produce aureate and copper blanks on steel, and two years later the Chinese government did the same for an aureate plant in Nanjing. Yet again the importance of research, home-developed technology, and an adventurous spirit seeking non-traditional markets, had paid off.

Less spectacular, but just as lucrative for the company, has traditionally been the production of commemorative medals, as well as trade medallions and parking, subway and public transportation tokens. The first commercial order for Nickel-Bonded-Steel tokens was in 1974--for 10,000 parking meter coins for Peel Memorial Hospital in Ontario, and orders have been placed from around the country since. Alberta's Klondike Dollars and some of the medals at the 1978 Commonwealth Games are examples of this type of work. By the late 1970s, nearly half of the nickels, dimes and quarters used in Canada were made with nickel from the Fort Saskatchewan refinery. The versatility of Sherritt scientists was illustrated in 1977 when the demand for less expensive coinage arose, and nickel was replaced by Nickel-Bonded Steel. In 1981 Sherritt opened a new N-B-S plant, to allow them to keep up with orders--twenty years after they had made their first coinage blanks. In 1989 the company announced the expansion of the N-B-S facilities (at a cost of $9 million) to double capacity at the coinage facility, from 2750 to 5500 tonnes per year.

A major breakthrough at Fort Saskatchewan in the Spring of 1986 was the announcement that some 300 million aureate steel $1 coins (the "loonie") were to be developed using Sherritt-made

blanks. This represented the next stage of "golden" steel, known officially as Aureate-Bonded-Steel, or A-B-S. This occurred in 1987, largely because of projected savings of $175 million--based upon the lifespan of such coins of 20 years, and of banknotes of just one year). Finally in 1995 a further development, Copper-Bonded-Steel or C-B-S (for lower denominations) was introduced. Put simply, all Canadians and many millions of citizens from dozens of countries have been in contact with this application of Sherritt research and development.

The decision by Sherritt (and later Westaim) to pursue the potential of coin blanks, medals, and coinage once again illustrates the "can-do" philosophy of this small company. Both succeeded in harnessing their pioneering, pragmatic approach to a need (and opportunity), and employed their technology to do things that had not been done before. In the process they have consistently made a profit for the company, while providing fertile territory for innovation and further practical application of the technology. It is clearly a niche business, but it is a global business too--one that touches hundreds of millions of people. Research and development from this small Prairie city again have had an international impact--and have again proven Mackiw's theory of Sherritt being a company of "defiers of precedent and experience."

The Importance of Research at Sherritt

Perhaps no better barometer of Sherritt interests in research and development can be seen than the list of Technical Papers produced by Sherritt staff over the years that graces the company's library in Fort Saskatchewan. It is an extraordinary document of 410 detailed papers that speak volumes of the company's technical expertise, and its application both in North American industry and around the world.

As might be expected, there are many papers that challenge the layperson's grasp of scientific knowledge (e.g. "The Recovery of Molybdenum from Cupriferous Molybdenite," "Low Power Torches for Organic Solvents in Inductively Coupled Plasma Emission Spectometry," or "Low Density Nickel Powder by Hydrogen Reduction from the Aqueous Ammonium Carbonate System"). There are also many dealing with the historical experience of the company's experience in its traditional mining activities (For instance there is a well-developed series of five papers on the Lynn Lake project that examine several key aspects of this important early stage of Sherritt Gordon's mining history: discovery and financing; the geology of Lynn Lake; mining and milling at the site; and refining at Fort Saskatchewan). There are also several dozen articles dealing with specific challenges met at Sherritt Gordon mines, mills and research facilities).

The practical application of Sherritt technology is also commonplace: "Pure Nickel Strip by Powder Rolling, "Three Ways Corrosion Hits," and "The Advantages of Nickel for Coinage" are obvious examples. The use of Sherritt technology and consulting services is very prominent, with many articles detailing cases where the company solved difficulties at other plants, and exported their technology (at a tidy profit) to other companies: "Startup and Operation of the Kidd Creek Zinc Sulfide Pressure Leaching Plant," Recovery of Cobalt, Nickel and Copper from the Madison Mine," "Starting Up the Sherritt Zinc Pressure Leach Process at Hudson Bay," and "The Application of Pressure Oxidation at the Campbell Red Lake Mine." The important international role of Sherritt is also highlighted (some of the articles are translated into French, Spanish and German). There are also articles detailing the many Sherritt consulting experiences abroad, such as: "The Western Platinum Base Metal Refinery," "The Sao Bento Gold project--Pressure Oxidation Process Development," "Murrin Murrin Nickel-Cobalt Project: Project Development Overview,"

"Equipment Selection, Plant Design and Personnel Training at the Impala Nickel-Copper Refinery," and "China's Nickel-Bonded-Steel Coinage Blank Plant."

More recent high-tech applications can also be seen in some papers: "Abradable Clearance Control Seals for Aircraft Turbine Engines," "Tuffstuds--A New Wear Protection System," and "Nickel Superalloys and the Materials which May Replace Them in Aerospace Engines" are three clear examples.[13] More surprising, perhaps, are the papers dealing with practical and financial aspects of ensuring the continuation of research at such a diverse plant as Fort Saskatchewan: "Federal Research Assistance Programmes--Experience at Sherritt Gordon Mines Limited," "Financing the Costly Development Work Arising from Successful Research, "The Value of Research," and "The Role of R & D in Corporate Strategy."

Finally the titles also reflect a distinctive note of pride in the contribution made by company employees: "Laboratory Studies on Flocculants for Settling, Thickening and Filtration in **the Sherritt Gordon Process**," "The Precipitation of Metallic Nickel from Aqueous Solutions in **the Sherritt Gordon Process**," "Integration of **Sherritt** Zinc Pressure Leach Process at Ruhr-Zink Refinery, Germany," and so on. As can be seen, there has been a consistent emphasis on research activities throughout Sherritt's history--although the variety of topics dealt with, particularly for a company of its size, is truly exceptional.

Having spoken with about a dozen key players in the area of research and development at Sherritt about the importance of R and D at the company, it is clear that there was an unusual mixture of factors at play. Several oldtimers speak wistfully about the interest by management in research for research's sake. Long sessions sitting close by the coffee machine, brainstorming with veteran scientists over what one termed "wild and new ideas" were particularly helpful for

researchers, developing interest in various projects. (By contrast, noted another key figure now at Westaim in an interview with the author in June 2001, "nowadays research is very, very focused in a gateway process whose basic objective is to look for commercialization").

The monthly progress reports, a remarkable set of papers illustrating the technological history of the company, were also extremely important in fomenting this deeply rooted interest in research. As Bob Fraser noted in June 2001, "All of us had to write these monthly reports--and everybody hated it." At the same time they represented a remarkably thorough history of what went on at Sherritt for decades, showing experiments in the labs, product research, successes and failures--basically undertaken so that nobody would repeat errors made, and all could benefit from the research findings. In many ways it was a rationalization of staff time and research effort, as well as the opportunity to share ideas and results, and this discipline was highly regarded.

Another important element was the fact that Sherritt provided excellent research facilities, particularly important during the 1960-75 period, seen by most long-term researchers as the "golden age" of R and D at Fort Saskatchewan. This can be seen most clearly in the surface area given over to research--just 2,500 square feet in the late 1950s (the lower floor of the Administration Building, which then increased to some 20,000 square feet in the new research complex in 1967. This rapid expansion grew out of the many successes of the early 1960s, including the development of a number of pilot plants for copper, zinc, and laterites. To a large extent these projects, and the export of Sherritt technology and services, paid for the facilities. Together with the exceptional esprit de corps, and fast-developing international reputation, these state-of-the-art facilities, helped to solidify the many successes in Sherritt's exemplary research and development record.

The end result of this complex process was that people in the labs and research facilities

came to regard Sherritt-Gordon as their company, and at the same time saw themselves as key members of the R and D team. (As a result, for many there was a sense of profound loss in 1990 when Ian Delaney took over the company. As one long-time manager, reflecting back on his feelings at the time, noted to the author in June 2001: "We felt as if those bastards had taken over our company--because it really felt after all these years that it was indeed ours"). In sum there was a combination of discipline, a free-flowing exchange of ideas, a profound interest in the very concept of research (not necessarily accompanied by the need for development), the hands-on leadership of Vladimir Mackiw, and a sense of personal ownership in the collective company goals, which all contributed to the development of a propitious research climate at Fort Saskatchewan--and ultimately many important research break-throughs. As Mark Benz, a long-time manager at Westaim, noted, this unusual amalgam "created a profile of Sherritt-Gordon Mines in those days--both here in Canada and around the world--which was much, much greater than its actual size would have indicated."[14]

The Licensing of Sherritt Technology Abroad

Mention was made in the previous section about Sherritt's many activities abroad, and this *wide-ranging international application of technology in itself is a noteworthy success.* But it is particularly so when one considers the degree of foreign competition which the company faced. Canadians are renowned for their self-effacing sense of humour, and their conscious decision not to thump their chest in the patriotic fashion so common in the United States. Consumer advocate Ralph Nader has explained well this phenomenon: "The enormous economy and population south of its border, the large portion of the Canadian economy owned by absentee Yankee investors, and the

cultural domination would give anybody a 'superior inferiority complex,' to use the phrase of Andrew Malcolm, author of The Canadians."[15] Yet this sense of modesty is often misplaced, since there is an underlying foundation of pragmatism and common sense in Canadians which is often not sufficiently appreciated. Indeed the international role of Sherritt is a perfect illustration of this quiet application of Canadian technology. This process of licensing and harnessing Sherritt technology around the globe has proved an invaluable source of income--particularly at times when the world price for the company's products had declined.

Throughout its history, Sherritt invested consistently in research and development, and its technological reach--applying this knowledge--can be tracked around the globe. The (relatively small) company from Fort Saskatchewan has calmly and efficiently employed its research track record on the licensing of technology to dozens of clients. The list of places where this work has been carried out is impressive indeed. Among the earliest clients of Sherritt were companies in Moa, Cuba--prior to the Cuban revolution of 1959. Since 1969 Union Corporation of South Africa has employed a Sherritt process in the treatment of nickel-copper matte containing platinum group metals. In that same country the Impala Platinum Company has employed Sherritt technology to recover nickel, copper and precious metals by means of an acid leach process. Western Platinum, Lefkochrysos, and Northam Platinum, also in South Africa, have been clients--as have Bindura in Zimbabwe and a number of U.S. companies. A large cobalt plant in Finland, Outokumpu Oy (which came on stream in 1968) uses a Sherritt process to recover cobalt from a complex ore formation. The Akita Zinc Co. of Japan uses a hydrometallurgical process to treat zinc plant leach residue. In 1974, and again under license from Sherritt, Marinduque Mining and Industrial Corporation of the Philippines started a nickel refinery to treat lateritic nickel ore. Technical services were provided

by Sherritt for a large nickel refinery operated by Matthey Rustenburg Refiners in South Africa. Refining companies in Indonesia and Australia (Western Mining Co. in Australia used the ammonia nickel leach process at its new refinery) have also licensed Sherritt technology. It is worth putting this "un-Canadian" achievement in the appropriate context: "Sherritt is already world-renowned for its innovations in both hydro and powder metallurgy. One measure of that success is that roughly 40% of world nickel output is produced using Sherritt's proprietary metallurgical processes. More significant perhaps is the fact that Sherritt's in-house labs are financed entirely from royalty and licencing fees generated by its own R & D."[16] In 1976 alone companies in South Africa, Australia, Finland, Japan and the Philippines paid some $2.3 million in licensing fees for Sherritt-developed technology.[17]

An insightful (and amusing) illustration of this extensive record export of Sherritt can be seen in the memoirs of long-time employee, Neil Colvin, significantly entitled "A Nickel's Worth; Glimpses of People and Places." With tongue in cheek humour he details his experiences as a Sherritt manager in a handful of exotic locations. Is started in 1965, "a time of transition for me--it marked the beginning of about 15 years of assignments in which I witnessed the spread of Sherritt technology throughout the globe. Why me in Japan in 1965? As always, the reasons were complex and often irrational. Sherritt had developed a pressure leach process for the extraction of zinc from complex ores and a Japanese mining company, Dowa, became interested in its possible application to the concentrates being produced in the black ores in the northern part of the island of Honshu."[18] A pilot plant was established, and three Sherritt management staff were dispatched to supervise the project.

The winter of 1967 found Colvin in northern Finland, where a local mining company had

purchased technology from Sherritt for the recovery of cobalt metal from pyrite ore. A key component in the process was a plant designed to produce the hydrogen sulfide needed for the process. Unfortunately the U.S. company contracted for the process did a poor job--which led to Sherritt being invited to supervise the process and help to get the plant back on stream. Following several hilarious episodes, including the "Night of the Chilean,"[19] Colvin returned to Fort Saskatchewan--only to be dispatched to Australia for a longer stint in 1969 and 1970.

This time Sherritt was selling company technology and start-up assistance to Western Mining, which had recently discovered rich nickel deposits in western Australia. A dozen Sherritt employees and their families moved to Perth for the new challenge. Colvey was soon on the move again--this time to the Marinduque project in the Philippines. The project was important for several reasons. On the one hand it represented the sale of Sherritt technology to upgrade large deposits of nickel laterites, while it also helped meet the urgent need for a source of feed for the Fort Saskatchewan refinery. Colvin ended up directing the project (a large operation involving some 4,000 employees), overcoming a number of challenges, and establishing Sherritt's reputation in the Philippines. His contribution to the company--and that of scores of other Sherritt employees in similar projects around the globe--illustrates well the missionary zeal with which the company sought out such contracts. As a cursory glance at the annual reports of the company shows clearly, the sale of Sherritt technological services--such as those provided by Colvin and fellow employees--provided a steady flow of income into company coffers, while at the same time enhancing the international reputation of Sherritt. Yet again, research and development held tremendous importance for the company, and on various levels.

This self-sustaining financial process, utilizing the collective research skills of its staff, flies

in the face of the traditional approach of Canadian mining companies. The usual pattern is to export raw materials elsewhere, where they are refined and have value added to them. Yet Sherritt has established a profitable service, based upon its extensive research experience, which it exported successfully for decades (and for which royalties are still received from a number of countries). The logical question of course is how Sherritt managed to go against the flow, and not follow the example of its competitors. The question was answered well by the anonymous author of an article published in Canadian Chemical Processing in 1978: "How did Sherritt get to export technology instead of raw materials? Not so much by choice as by necessity ... To build their own refinery, Sherritt needed a process which could be built on a small scale at low capital cost. Such a process did not exist. So, Sherritt researchers devised a new process which used hydrogen gas to reduce dissolved nickel and precipitate nickel powder from solution. ... Technical experience gained from Sherritt's nickel process served as a base for more than a half-dozen other metallurgical processes."[20] The Forward process, supported by a progressive management and motivated technical workforce, thus led to a variety of profitable spin-off benefits, not the least of which was the establishment of Sherritt Gordon as an engineering force to be reckoned with around the globe.

The Westaim Initiative

Perhaps the most sophisticated facet of the company's commitment to research and development was the work carried out by Westaim, which was designed to take Sherritt research from lab bench to commercialization. The new Sherritt subsidiary was intended as "the largest advanced technology deal the province has ever envisioned," Alberta Technology Minister Fred Stewart commented at the 1989 unveiling ceremony of the advanced industrial materials (AIM)

centre in Fort Saskatchewan, and for its relatively short life-span it was an extremely important part of the Sherritt history. (It is now a wholly independent corporation, located upon the original Sherritt site, but completely separate from the rest of the plant). Sherritt Gordon was the catalyst for the development, in which funds from the province and the federal government were also invested. The objective was to pool research interests of Sherritt (which brought to the table the services of its 185-member technology group), industrial allies, universities, and research organizations. The research was to be undertaken in several materials development projects in the areas of polymers, ceramics, advanced metal/matrix composites, and thin-film coatings--and the logical customers were leaders of the aerospace, electronics, construction and process industries. But after pooling ideas, even more important was the idea of channelling marketable ideas, the result of research and development, to the commercial stage. This was what Westaim primarily sought to do.

The key figure in the Westaim story is Bob Weir, who had joined Sherritt in the mid-1960s as a young chemist. Together with Vladimir Mackiw he worked on refining hydrometallurgical technology, bringing in lucrative returns from the licensing of this Sherritt expertise. He was supported by the company president David Thomas (who replaced Eldon Brown upon the latter's retirement in 1968 and stayed as CEO until 1985), and by his successor Russ Latham. Both these men saw that Sherritt's early mining tradition had to be replaced by a more modern vision, and that the proper harnessing and commercialization of the company's substantial technological know-how was to be an important component of their strategic plan. What was new was a decision to team up with private sector leaders who wanted to participate in technological change, but lacked the research capacity or the facilities to do so. (This was an important stage in the company's business culture, since until this time they had relied almost exclusively upon their own large resources of human

capital, and significant industrial experience). The timing is important, since in 1986 the Ruttan mine was written-off with a $26.4 million loss, at which time Latham clearly indicated that mining was now off the radar screen for Sherritt. As a result, while refining metals would continue to be the major function of the company at Fort Saskatchewan, developing and selling new technology was now to become significantly more important for Sherritt--and might well prove the future development path for the company. In symbolic terms the change of the company's name was just as important. In the spring of 1988 CEO Latham underscored this dramatically when the company name was changed from Sherritt Gordon Mines Limited to Sherritt Gordon Limited--the end of an era had arrived. The "Mines" aspect of the company was finally laid to rest--and, despite some concerns about the future, a new stage had clearly arrived. Research--and in particular development--were now to assume an ever-greater importance at Sherritt.

Later that year a strategic analysis of the company emphasized three areas of the company that, if properly addressed, could prove to be particularly lucrative ventures--External Technology, Specialty Metals, and the Advanced Materials Initiative. Support came from the Alberta government, keen to create employment in the area, and pleased with the concept of a sophisticated high tech growth pole in western Canada. The federal government also provided financial support (the original agreement was for $180 million from Alberta, $45 million from Ottawa, and $90 million from Sherritt, although in the end these percentages were changed around significantly). All believed firmly that Westaim had the expertise, tradition, management and potential to commercialize the significant scientific research and development programme being undertaken at Fort Saskatchewan.

By August 1989 all parties had agreed to a Memorandum of Understanding (the final

Westaim Agreement was signed in January of the following year), and Bob Weir was able to push ahead with actual planning. The first challenge was to augment the skilled Sherritt staff with other specialists. This proved to be relatively easy, to no small degree because of the high reputation of Sherritt research--and in its first eight months of operations Westaim received over 1,000 resumes from interested scientists. Work began at a feverish pace on a number of initiatives--and at one point they were working simultaneously on some 30 projects. It was a time of staking out scientific territory, and of convincing sceptics that the lavish amounts of funding being funnelled into Westaim would be money well spent.

But just as things started moving ahead, office politics got in the way. Russ Latham retired in early 1990, being replaced in May by Charles Heinrich, a person who apparently never fully believed in the Westaim potential. The Delaney revolution, just a few months later, posed an even greater challenge, both for Westaim and for Sherritt--already in shock after seeing a 65% drop in its stock price (in July 1990), as well as having the Fort Saskatchewan plant idle in the summer (because of a severe lack of feedstock), and the hostile takeover by Ian Delaney (September). Where would research and development--and, more specifically, the role of Westaim, fit into this equation, particularly when Delaney had no experience in the business, and was clearly a hard-nosed financier, focussed solely on the financial bottom-line? Clearly there was a matter for some concern--Westaim was still in its initial growth stage, yet Sherritt was in the throes of a major identity crisis, and clearly could have failed in 1990. It was not going to prove an easy ride for Bob Weir and his colleagues--although Delaney had made it clear that he was open to all profit-generating ventures in the company, and in fact was more supportive of Westaim than many observers had expected.

Ian Delaney's first priority as the incoming CEO was to find substantial sources of nickel for

the refinery, and fast. The Cuban nickel (with a high concentration of cobalt, selling at a price that was three times that of nickel) meant that a number of related research projects could now be carried out at the company, including in the research labs of Westaim. The changing of the guard thus meant that Westaim was again viewed favourably by the management--provided that it could contribute to the company's immediate financial wellbeing. On May 13, 1991 the Mackiew Material Centre (Westaim's major research facility) was inaugurated--and R and D (and, more important, commercialization of these pursuits) was again in the forefront of Sherritt's plans. It was always clear, however, that Westaim had to produce results--since otherwise the ailing company would close it down as a means of saving money. In the past, "pure" R and D had been common at Sherritt. Incoming Chairman Ian Delaney had little time for such frills. The company was in dire financial straits, and this meant that all components of Sherritt were encouraged (and expected) to contribute to a solution to this crisis.

References to Westaim's projects remained warm throughout the early 1990s in Sherritt's Annual Reports, and clearly Ian Delaney was prepared to give the initiative a chance. "The Westaim advanced industrial materials initiative will receive continued emphasis in 1992. Management believes that much of your Company's future lies in this area," notes the 1991 report. The following year Ian Delaney and Vice-Chairman Bruce Walter emphasized the importance of a new antimicrobial coating, developed at Westaim, noting "The personal market for devices which utilize this technology is enormous."[21] In 1993 Ian Delaney again underlined "some significant advances" in the Westaim research program, adding: "Management believes that the results of this division of your Company will assume much greater importance in our corporate development in the next few years." The 1994 report noted "During 1995 we expect to begin commercializing several exciting

new products which, over the course of the next few years, could have a material impact on Sherritt's financial results." But things were soon to change--and largely because of international politics. (The purchase of Cuban nickel, subsequent pressure from the United States--the Helms-Burton law--against companies doing business on the island, and the Board's decision to split Sherritt into several smaller companies--clearly left no place for Westaim with Sherritt's focus on Cuba). The 1995 report focused on the changes resulting from this division of the company and the foundation of Viridian (previously known as Sherritt Inc.), and merely gave a brief summary of continued progress in five specific areas. Clearly Delaney had far greater challenges to face up to, and one can sense a waning of interest in the potential of Westaim from this point on.

The bloom was clearly off the rose, in the sense that when the Sherritt family was split up, Westaim was no longer viewed as being an essential, promising component of the Sherritt family, or rather the part that he now sought to direct. Its research had indeed passed through several stages, steadily improving, but for Delaney it was time to divide up the assets and move on. Pragmatism dictated that the division take place as swiftly as possible--with Ian Delaney throwing his hat into the Cuban ring, along with Sherritt International. All other divisions, spun off from the parent company, were now expected to fend for themselves. Accordingly on June 1, 1996 the Westaim Corporation, now wholly independent, commenced operations. Its website notes now that its function is to act as a "technology accelerator and bringing a discipline to technology investing." It also lays out several areas in which Westaim concentrates its commercialization, most of which bear a striking resemblance to work undertaken earlier under the Sherritt regime. These include its work in biomedical (antimicrobial dressings), iFire (flat panel screens), Industrial Technologies (coating tubes and fittings in the ethylene industry), its use of nickel powders to coat engines (and

improve fuel efficiency), and the stalwart of the company, Westaim Coinage.[22] The fact that Westaim is continuing to develop lines first originated by Sherritt is hardly surprising--many of the 650 employees (including more than 140 scientists, engineers and technicians) worked for Sherritt in exactly the same facilities, doing research on the same or remarkably similar projects, when it was an integral part of the parent company. Their pay cheques may well come from another company, but they are physically working in the same plant as they had worked before, using the same labs and technology--and the Sherritt imprint, including its preoccupation with high quality research and development, will remain.

Concluding Remarks

This chapter began by making reference both to Vladimir Mackiw's exceptional commitment to high quality research and to Eldon Brown's tenacity, and ability to meet challenges head-on. The entire history of Sherritt, now 75 years old, is eloquent testimony to the vision of these two men, and their capability to take advantage of breaking opportunities. The early chapters illustrated Brown's ability to drag the small mining company with him as he strove--on several occasions--to overcome all odds and make Sherritt Gordon survive. In terms of the ability to take advantage of the talents of the research staff, one can look at the 1950s as a clear example of this process to exploit fully unexpected opportunities. The fact that, shortly after starting its unique nickel and cobalt refinery at Fort Saskatchewan, it became a major fertilizer producer, and then headed into the unknown (but profitable) waters of value-added commercialization of special materials speaks volumes of the company's ability to look ahead, and to react to change. "Right from the start at Fort Saskatchewan there was a mindset that this all worked--that it would all come together, with various spin-off

products emerging," is how one former manager in a June 2001 interview with the author described the sense of optimism that permeated research and development in the golden age of the 1960s.

The first step in this process was to recognize the potential of ammonium sulphate, a natural by-product of the metal refining process, and to use it as a fertilizer base. Having seen the commercial value of fertilizer--which in latter years of poor metal prices would prove the saviour of the struggling company--Sherritt Gordon decided to expand its operations and to produce urea and various grades of granulated ammonium phosphate. Just as important in many ways was the investment in research into the application of hydrometallurgy to other metals--including cobalt, copper, zinc, gold and silver.

The same ability to think "outside the box" can be seen in Sherritt's decision--following much research--to go beyond the mere refining of feedstock to produce nickel and cobalt. The establishment of a rolling mill to produce nickel and cobalt strip from powder, followed by a plant that turned out high quality coins and commemorative medallions, and facilities that produced a variety of specialized nickel and cobalt powders, all reveal a determination to produce goods with a significant value-added component. In addition the lucrative contracting-out of highly regarded technical know-how to plants throughout the world also speaks to the imaginative and innovative approach to "product development." (By 1988, Sherritt technology was being used to refine an astonishing 40% of the world's pure nickel, and 15% of cobalt. Thirteen plants in eight countries were using Sherritt technology, seven of which had been built in the 1980s. Moreover, seven new plants and two plant extensions were in progress). Finally the value-added composite powders (used in a variety of areas, from abradable seals in jet engines to electronic microcircuits in computers) and a host of other products, as well as the consulting know-how cultivated for decades, have also

proved profitable ventures for Sherritt and the various spin-off companies that have resulted in recent years.

This is all a long way from the basic pressure hydrometallurgy of fifty years ago--much less the earlier days as a mining company. Yet at the same time it is just the continuation of company tradition, since the early Eldon Brown days, for as Director of Research Maurice Clegg put it simply in 1989: "None of us can remember Sherritt without Research. Research has always been there."[23] (In an interview in June 2001 Bob Fraser reflected on the high quality of research facilities, and the large research groups working on a variety of projects, in the 1960s and 1970s, and remembers with some amusement the reaction of some Dupont researchers who been amazed at this commitment to cutting edge research by what until then they had regarded as "farmboys from some far outpost in the Frozen North").

There is a down side to this proud tradition of technological research and development--and it is largely the result of international politics. Ian Delaney and his Board had little alternative in the 1990s other than to divide up Sherritt--into Sherritt International (dealing exclusively with Cuba) and Sherritt Inc. (which at first changed its name to Viridian, and then went into spin-off mode, fathering several companies noted earlier in this chapter). The human cost has been high, however. While personal friendships between longtime Sherritt employees now working at either Sherritt, UMEX, Dynatec or Westaim did not suffer greatly, professional relationships did. In part this was because of the meticulous dividing up of the sprawling Sherritt plant at Fort Saskatchewan. Utility lines for Sherritt International and their Cuban joint venture partners had to be kept scrupulously apart from those of other companies on site which were exporting to the United States. Barriers had to be put up, separating Sherritt International property from the others. Maintenance groups which had worked

side by side for decades were split up among the various spin-off companies, tools were distributed between groups--and considerable confusion reigned. (Of the original R and D personnel, some 85% of the research section, 25% of Engineering, and 50% of the Analytical division went to Dynatec. Those who remain with Sherritt International in the Technology Group now have the prime objective of serving day-to-day company operations at Fort Saskatchewan and Moa in Cuba. For them, despite 2-3 patents which have resulted from their work, research as it had traditionally been practised, is no more).

One absurd example perhaps illustrates the degree of divisiveness that resulted. Prior to the mid-1990s there had been one central library facility: there are now three, with all the original material being divided into the different locations. As one Sherritt International researcher mentioned, if he wants a report that he had written several years ago, and that is located at another site such as Dynatec or Westaim, he has to request the librarian at Sherritt to ask her counterpart at the other company to borrow it--and to add insult to injury even has to pay for access to his own report. As one longtime employee put it when describing the tensions surrounding the dividing up of facilities and research groups, "it was almost like going through a divorce and property settlement."

For many idealists it is of course sad to see the Sherritt "family" broken up into smaller pieces--with the creation of UMEX, Westaim and Dynatec, and the drain of talent away from the original unified research programme. It is ironic too to observe how Westaim is now listing many of the old Sherritt papers as "new Westaim" ones, and to see Dynatec Corporation noting in its promotional literature that "the Company's body of proprietary technology has been developed through 50 years of research and service... The Company's metallurgical technologies have been

used in more than 30 plants around the world... The Company has more than 70 active patents and patent applications." All of this is true, but it was largely carried out by Sherritt employees, who subsequently moved to the companies when the company was divided up. (In fact Dynatec is the outright owner of all the patents--except for one--licences, and intellectual property related to extractive metallurgy developed by Sherritt for some 40 years). Clearly the sum of the smaller pieces--the offshoot companies--is nowhere near the potential of the unified research group in pre-1996 times.

Putting aside these concerns, however, and looking at the "big picture," it is clear that research at Sherritt--both before and after 1996, and in all locales in Fort Saskatchewan--has traditionally been of paramount importance. An example, mentioned earlier, bears repeating since it illustrates well this commitment to research. For decades scientists, metallurgists, chemists, and engineers were all expected to file progress reports every month at the plant, in this way summarizing publicly the work that they had done. Their failures as well as their breakthroughs were all posted, for all to see, and comments were expected--and given. The library at Sherritt's facility (just a fraction of what there was in pre-1996 times, with the end result that much documentation has been lost forever) has a huge filing cabinet in which these Progress Reports are kept--all 4,938 of them... It was this climate of collegiality, of sharing research problems, working in teams all hours of the day and night, seeking solutions to elusive problems, and later working on practical applications for the processes on which they had worked, which typified Sherritt's commitment to research and development. It is truly a unique story.

But perhaps the last word should be left with Vladimir Mackiw. In an undated paper entitled "Management of R & D in the Metals Industry" (but probably from late 1970s), the father of research

and development at the company noted that Sherritt Gordon allocated between 1.5% and 2% of gross sales to research. In the paper he urged researchers and their managers to be daring and innovative. Conservative thinkers were rarely successful, he noted: "One must be careful not to evaluate projects too exactingly and conservatively. In my opinion, a research director who claims no failures among his projects, with all probability has also few successes. A timid research staff will not meet with a bad failure, but it is also unlikely to make any major breakthroughs either. Aggressive research is a speculative business which involves a considerable amount of calculated risk, drive, and enthusiasm." Calculated risk, drive, fundamental pragmatism, and enthusiasm--not a bad way to sum up Sherritt's commitment to research and development. It certainly appears to have worked surprisingly well for decades.

NOTES

1.Gallie, op. cit., p. 333.

2.The Dynatec facilities in Fort Saskatchewan, are the "old Sherritt Gordon Metallurgical Technologies division that has more than 50 years experience in the development and commercialization of hydro-metallurgical processes for the treatment and recovery of non-ferrous (copper, nickel, lead, zinc, gold) metals from both ores and concentrates." So says the report on the Dynatec Corporation put out by the Independent Equity Research Corp. of Toronto on May 16 of 2001. At their new plant they provide metallurgical consulting services, while much of their income also comes from patented technologies that are used around the world. Significantly much of these patents were originally held by Sherritt, but in the division of the Sherritt family in 1996, these were acquired by Dynatec.

The Fort Saskatchewan plant is one of three divisions of Dynatec Corporation. The original division was Mining Services, and it remains as the predominant section, providing a variety of services--from mine design and construction to shaft-sinking and contract mining. A second division is Drilling Services, and the third--the only one in Fort Saskatchewan--is Metallurgical Technologies. It is headed by Gerry Bolton, who has worked for Sherritt (and subsequently for Dynatec) for 25 years.

3.UMEX Inc. is a wholly owned subsidiary of "Union Miniere", a world leader in the non-ferrous metals sector. Its publication, "A Look at Umex Inc.," published in August of 2000, establishes from the outset its Sherritt connections: "UMEX's origins can be traced to Sherritt Gordon Mines Ltd., the international nickel and cobalt refiner located in Fort Saskatchewan that was founded in 1954. Evolving from Sherritt's Specialty Materials production group and advanced industrial materials research initiative (The Westaim Corporation), UMEX has a long standing history of developing and commercializing new metal based powder products.

On November 1, 1997, Union Miniere purchased the Leduc Battery Materials and the Fort Saskatchewan Ultrafine Cobalt Production facilities, some Physical Analytical Operations and the Research and Development interests from the Westaim Corporation."

The UMEX research facilities are still located in the Westaim

buildings on the Sherritt site, and many of its employees--as is the case of their Westaim counterparts--are former Sherritt researchers. UMEX nowadays produces specialty metal powders and compounds, specializing in those used in the battery, diamond tool, hard metal, and electronic industries. And, while much of the commercialization is designed to meet the goals of Union Miniere, it is also based closely upon work carried out earlier by Sherritt.

4.Anon., "Sherritt Gordon: A company sold on in-house R and D," Canadian Research and Development, Sept-Oct. 1969, p. 34.

5.Letter of Vladimir N. Mackiw, Executive Vice-President, Sherritt Gordon Mines Ltd., to J. Hugh Faulkner, Minister of State (Science and Technology), House of Commons, Ottawa, April 5, 1977, p. 6.

6.For a readable analysis of the importance of the work undertaken at the pilot plants in Ottawa, see Michael J.H. Ruscoe, "Sherritt Research: A History of Achievement," Unpublished paper, December 5, 1996.

7.In a paper given at the University of Alberta in 1992, M.A. Clegg, Research Director at Sherritt Gordon Ltd., spoke of the need for all companies in the metals industry to maintain a solid research record: "The metals industry, probably more so than any other today, is facing fierce competition from substitute products, from ceramics on the one hand for higher temperature performance, and plastics on the other hand for lighter weight and other advantages. In this situation, R and D commitment and strategy are vital for survival." See M.A. Clegg, "The Role of R and D in Corporate Strategy," Paper presented at the Faculty of Engineering at the University of Alberta, March 1992, p. 3.

8.Interview with Bob Fraser, Edmonton, June 6, 2001.

9.Ruscoe, op. cit.

10. "Selling Technology Adds to S-G profits," Canadian Chemical Processing, March 1978, p. 33.

11.Cited in Mary McIver, "What do Lebanon and Syria do when they run out of money?," Nickelodeon, vol. 18, no. 2-3 (July-Aug 1972), p.4.

12.Much of this information comes from the informative article of Carlie Oreskovich, "Money Galore," The Financial Post, March 1977, pp. 12-16, 42-44.

13.In a report submitted to the National Research Council in April 1982, the company explained the use of these products: "Probably the largest sue of composite powders is for the production of nickel/graphite thermal sprayed abradable seals for clearance control in aircraft turbine engines. The abradable seal maintains a close clearance between rotating and stationary components in the turbine during conditions of expansion, creep or distortion encountered during engine operation. The improved seal results in increased engine efficiency and reduced fuel consumption."

The same report also talked about the value of using composite powders, employing both hard wear resistant materials and low friction bearing materials. In the first case, "composite powders such as Co/WC are used to coat cutting edges, knife blades, rubbing interfaces, etc. For low friction applications several unusual combinations are being evaluated including Cu/Graphite for sliding electrical contacts and NiO/CaF2 for a rubbing seal against a ceramic heat exchanger in a truck carbine."

Finally the paper spoke about more recent discoveries: Dispersion strengthened nickel is another commercially available product manufactured by Sherritt by a powder metallurgy process followed by a critical sequence of thermomechanical processes... DS Nickel (registered trademark) has a superior strength compared to the wrought superalloys at temperatures above about 1000 degrees C and is currently the specified material for several critical components in military and commercial aircraft turbine engines. Examples include Pratt & Whitney Aircraft's TF 30-P100 engine powering the General Dynamics F-111 aircraft and Pratt and Whitney Aircraft's JT-9D engine powering the Boeing 747 jumbo jet. This latter highly popular commercial aircraft constitutes a significant market for DS Nickel."

See Sherritt Gordon Mines Limited, "Description of the Company, Submitted to the National Research Council Canada, Industrial Research Assistance Program," April 1982, p. 10-13.

14.Interview with Mark Benz at Fort Saskatchewan, June 7, 2001.

15.Ralph Nader, in Nader, Nadia Milleron and Duff Conacher, Canada Firsts (Toronto: McClelland and Stewart, 1992), p. xii.

16.See "Sherritt Gordon to Anchor Alberta's Advanced Materials Thrust with New $140 Million R & D venture," Research Money, August 30, 1989, p. 2.

17.In his insightful paper on Sherritt R and D, Michael Ruscoe examines in details the pilot plant operations set up at Fort

Saskatchewan for international clients. There was also a significant amount of custom process research for companies in a number of countries as well as in Canada: "These projects included collaboration with Cominco on pollution free copper recovery; treatment of Key Lake, Saskatchewan uranium nickel ore for Uranerz; refractory gold ore treatment for General Mining Corporation at Sao Bento in Brazil and for Porgera in New Guinea; and commissioning of a pressure zinc leaching process at Hudson's Bay Mining and Smelting in Flin Flon, Manitoba." See Ruscoe, op. cit.

18.Neil Colvin, op. cit., p. 35.

19."One day there arrived at the plant a tall, suave gentleman from Chile to view the Outokumpu smelter..... As a potential customer, he was wined and dined in the usual fashion. On the second night he was invited to the company club house...

At the brandy and cigar stage, when the politics of the world had been firmly settled, our hosts said: 'Now for a sauna.' Our Chilean friend had never heard of a sauna before... However, being a man of honour and courage, he signalled his acceptance and off we went to the sauna wing of the clubhouse.

As we entered the change rooms, I could see an uneasiness developing in his bearing, but he looked for direction from our hosts. There was more cognac, then off went the jackets. Shirts, shoes and socks followed. The Chilean was now distinctly puzzled and in a mild state of alarm.

More cognac. More cigars. Finally, of course, we were in our birthday suits with towels wrapped around our necks. Off we waddled into the sauna with our southern friend in a state of amazement. In his mind he probably had visions of participating in some wild Nordic orgy and he was not sure if it was to be hetero- or homosexual.

One of the big pot-bellied hosts settled onto the wooden bench and proceeded to whack himself with the birch branches. As he'd failed to explain to the poor Chilean the purpose and ritual of the Finnish sauna, the latter had quite clearly decided that both his health and his virtue were in danger.

Minutes passed. Perspiration flowed. Then we stampeded out the doors into the Arctic chill of minus 40 degree temperature and rolled around in the snow with great gusto.

All of us, that is, except the man from the south. By this time he was convinced that the Finns were stark, raving mad.

He dashed into the building. In a flash he was dressed and in agitated Spanish was demanding transportation to his hotel from club house attendants. Our hosts roared with laughter. Only then with consummate diplomacy did they explain to the Chilean the Finnish ritual." (Colvey, op. cit., pp. 52-53).

20.See "Selling Technology Adds to S-G Profits," Canadian Chemical Processing, March 1978, p. 33.

21."One of the most exciting Westaim projects involves innovative technology for producing antimicrobial systems targeted at the multi-billion dollar world health market. These specialized systems are designed to prevent infection resulting from medical devices and materials that enter the body." See "Operations Review: Sherritt Technologies" in the 1992 Annual Report.

22.In the 1995 Annual Report of Sherritt Inc.,the section dealing with Westaim Technologies Inc. emphasized several areas in which the company was working. These included research into batteries, noting how in 1995 Westaim had completed "the development of advanced process technology for the production of spherical nickel hydroxide for rechargeable nickel/cadmium and nickel metal hydride batteries." Likewise a commercial flat panel display screen had been finished. Work on ceramic cutting tools had been undertaken. The following year commercial trials were to be carried out on ethylene plants to test treated surfaces and see how to make the plants more efficient as a result of the engineered coating. Biomedical coatings technology, helpful in reducing the risk of bacterial infections, were among the most promising lines, and the Burns Unit at the University of Alberta Hospital was ready to begin clinical trials on patients. Finally, following years of development of aluminum nitride (a ceramic material with excellent thermal properties), the company hoped to expand sales of components sold under the ThermicEdge name. The similarity with the products noted in Westaim's 2000 Annual Report is worth noting.

23.Maurice A. Clegg, "Comment: Research Affords Opportunity," Sherritt West, February 1989, p. 2.

Chapter 5:
The Delaney Take-Over

There have been two defining moments in the history of the Sherritt corporation in the last fifty years--the opening up of the Fort Saskatchewan refinery in 1954, and the take-over of the company by Ian Delaney in 1990. The first of these two events has been described in detail earlier, and was clearly the logical conclusion of the need to obtain a greater added value for the refined orestock. The bid for power from outsiders came out of the blue--at a time when Sherritt was badly underperforming, yet was in many ways still an unexpected development. There had been worse economic times before--but there had never been a palace coup of shareholders, and so it was therefore surprising to see a hostile take-over bid. Particularly so, perhaps, when the new CEO had been in office for less than a year. What was surprising to the entrenched management was that the bid should come from someone without any long-term ties to Sherritt, in essence a rank outsider with remarkably limited experience in the company. Understandably when the take-over bid was initiated the Board was perturbed, but they believed strongly that Ian Delaney and his supporters posed no meaningful threat to their control, and were therefore confident that they could quash any attempt to oust them. This overconfidence would eventually lead to their ouster.

The company had never seen anything like it before in its history: the official Board of Directors (headed by a Chairman who had been with Sherritt for fully 22 years) was being challenged by a neophyte, a Bay Street financier with absolutely no mining experience, and a reputation as a soulless financier and calculating "wheeler-dealer". Clearly, it was thought in company circles, he could have no "feel" for this proud Canadian mining company with its

decades-long history. Moreover, it was widely believed that Ian Delaney sought only to capitalize on what he considered to be widespread shareholder dissatisfaction in order to turn a fast buck and then sell them off. As evidence of this, Sherritt management pointed out that he had only recently purchased his shares in the company, with the sole declared purpose of calling a meeting of shareholders, and ultimately taking control of the Board himself. His track record, it was noted, was that of somebody who moved in for the kill at underperforming companies--and then swiftly moved on after changing them radically--and profiting from the experience. These aggressive tactics scared many, infuriated traditionalists, and caused widespread concern among company employees. The late summer of 1990 would leave an indelible mark on the company, and change radically the direction in which it had been heading.

On one side was the company management, headed by president and CEO Charles Heinrich, who had joined Sherritt Gordon just a few months earlier (following the retirement of long-time president Russ Latham). He was supported by a Board of Directors, whose average length of service was seven years. On the other was Ian Delaney, a well-travelled financier who had been president of Merrill Lynch Canada, Bruce Walter, a lawyer and former colleague of Delaney at Horsham, and Eric Sprott, president of Sprott Securities. The front cover of the Financial Times at the time summed up in a nutshell the dilemma facing the company, one which seemed to have sprung out of nowhere: "Poor old Sherritt Gordon. There it was, minding its own business, when three slick-deal specialists rode in to roust the management." Inside the story was equally blunt, with the title of Jennifer Wells' story reflecting well what senior company management felt about the leaders of the attempted hostile takeover, "The Predators' Gall."[1] The quiet mining company with a long tradition of decorum and respectability (and also

rapidly declining profitability) was about to have its dirty laundry splashed on the pages of Canada's financial pages, and the rhetoric was soon to be ratcheted up several notches.

This entire episode lasted less than three months, but is worth examining in some detail, since it forced a serious questioning of the company's track record to date, and indeed changed dramatically its future direction. Nothing was ever to be the same at Sherritt. It shook up the management of the corporation, split the shareholders down the middle, and caused serious concern among the workforce in Fort Saskatchewan (who were already despondent because the lack of feedstock for the refinery meant that the plant was closed down for two months that summer). It was a bold strategy being directed by Delaney, and until the last shareholders' ballots were counted on September 19, it was unclear just who would win this intense power struggle. The company that emerged from the fiery debate on that day would be very different from anything that had been seen before.

The actual facts of the story are very straightforward. Delaney, Walter and Sprott formed a company called Canada SherGor Enterprises Inc., with the central objective of taking control of Sherritt Gordon by appointing Delaney President and CEO, and replacing most of the existing Board, deemed incompetent and out of touch by the young financial Turks. The prime mover in the strategy was Ian Delaney, a brash, confident financier, with many years in the investment industry. Delaney started his investment banking career with Merrill Lynch when he was in his early twenties. He left them for McLeod Young Weir, where he worked in the corporate finance department. In 1984 he rejoined Merrill Lynch Canada Inc. as President and Chief Operating Officer, and stayed until 1987 when he was hired by the Horsham Corporation as president and Chief Executive Officer, a position he retained until April 1990. His principal associate was

Bruce Walter, a lawyer who had also worked as Vice-President of The Horsham Corporation for the 1987-1990 period.[2] Together they had established their own company, Delaney Walter & Co. The third member of this troika was Eric Sprott, an investment dealer who ran his own company, Sprott Securities Ltd., and specialized in institutional investors. (He had earlier been active in selling Sherritt shares after Newmont had disposed of its shares in the company, and was familiar with the company's operations. He had tried (unsuccessfully) to obtain a seat on the Sherritt board in 1988, at which time he redoubled his efforts to seek a radical solution to the company's woes. Then, one day over coffee with his old friend Ian Delaney, he mentioned his frustration at the mediocre performance of Sherritt's stock and Delaney--who was seeking fresh challenges--looked into the matter. He soon reached the same conclusion as Sprott, and a battle strategy was drawn up).

The goals of this group were quite simple: to take control of what they saw as a stodgy mining company that was badly underperforming, breathe some new life into it, and turn it into a profitable operation. Their tactic to do this was in essence a palace coup, first fanning the flames of shareholder discontent, while then offering themselves as the type of progressive management needed by Sherritt, since they possessed the financial acumen needed to turn the company around. They might not have known a lot about mining, but they were astute business managers and financiers--and saw Sherritt Gordon as badly in need of a radical restructuring. For them the company was providing shareholders with a poor return for their investment. Moreover the lack of feedstock at Fort Saskatchewan in the summer of 1990 spoke volumes of the managerial competence. In an interview with Bud Kushnir,[3] retired vice-president of the Mining Division at the time, and a Sherritt employee for 32 years, he noted: "There is no question that we were an

organization that wasn't managed that well." For him the control of the Newmont Corporation (owning about a third of the company stock, and with three of their executives on the Sherritt board) was the principal reason for this: "We had these high-powered Newmont people on the board, and without a doubt Newmont ran Sherritt. And we kowtowed to them." Their influence was paramount, with Newmont basically telling Sherritt where they could mine: "Stay out of Australia and British Columbia--but do whatever you want in Manitoba. But don't go where we are," Kushnir remembers as the approach of Newmont.

But the control of Newmont was not the only factor that explains Sherritt's poor administration. There was also a general lack of vision. "We had a management that was stale. We also didn't really now how to finance a deal. We were hopeless at that. Our only way of financing was to go and talk to the CIBC bank," Kushnir observed. Just as serious was the overall lack of strategy, or ability to see the "big picture". Management seemed obsessed with minutiae: "We were micromanaged. Every morning we were phoned--and you'd have to say what the amount of tailings were, what production rates for that day had been. These are things that the production guys should do--not the vice-presidents. We should have been asking: 'Where is the company going?' 'What's in it for the next ten years?' But nobody thought like that," Kushnir explained. Clearly there were major problems at the serious managerial level.

This was the situation which Ian Delaney saw. Speaking with him in the fall of 1998, he explained his personal interest in the venture. In the early 1980s he had been involved briefly with Sherritt Gordon as a financial adviser, and helped to put together a financial package to help the fertilizer side of the business. He therefore had a fairly good understanding with the financial structure of Sherritt Gordon, and was well aware of the company's (under-utilized, as he saw it)

potential. After leaving The Horsham Corporation in May 1990, he was looking around for a challenging project, and over a discussion with some friends the issue of Sherritt came up. "I was not looking to do something with a public company. I don't mind taking risks with my money, but it is different if you are responsible for other people's capital... I spent six weeks walking around and mulling over the Sherritt proposal before deciding to pursue it," he noted.[4] Delaney had the financial wherewithal to be able to invest his own money, and was looking for a fresh opportunity. Over conversations with a local investment dealer, they narrowed their gaze to this particular struggling refining company with a wonderful mining tradition, and at that time fairly dismal prospects. This was to prove the target of their planning--the time was right to start battle. Accordingly they sought to purchase as many shares of Sherritt Gordon as they could, aware that they needed a minimum of 5% of all shares held if they were to put into place the first stage of their strategy.

The flamboyant, take-control character of Ian Delaney clashed head-on with the staid corporate culture of Sherritt at that time. The company was drifting, its new president learning the ropes, and its profitability rapidly declining. The controlling shareholder for nearly forty years had been the Newmont Mining Corporation, and since they had sold their controlling shares in 1988, the company had basically been floundering--and uncertain how to proceed.[5] Prior to this time the Newmont appointees on the board had been a major influence on Sherritt Gordon, and the Board of Directors had traditionally looked to them for guidance. After their departure, the company encountered a power vacuum, facing a variety of problems, and clearly lacking solid strategic direction. In essence the company had entered a dormant stage, the management clearly not up to the task of regenerating its fortunes--and as a result company

potential (and profits) dwindled rapidly. What had of course brought matters to a head was the dependency of Sherritt Gordon upon feed for its Fort Saskatchewan refinery--since this was the driving force behind the company's operations. As long as INCO could provide the raw material, that was fine--but when that large contract expired in 1989, the company was in absolutely dire straits as it scrambled around the world to secure feedstock for the refinery. An old problem had returned to haunt the company--only this time there did not appear to be any easy solution. The closing down of the Fort Saskatchewan plant for two months in the summer of 1990 when there was simply nothing to refine clearly spelled out the probable future of the company, unless it could obtain guaranteed feedstock, and quickly. Otherwise the future indeed looked grim indeed: Sherritt would then end up as a refinery without anything to refine. This of course meant the end of the company.

Into this volatile situation strode Ian Delaney. He is tall, aggressive, and charismatic. He suffers fools badly, and is fiercely independent. He is not unknown on Bay Street, the financial quarter of Toronto, having received the "Smiling Barracuda of Bay Street" moniker for his earlier deal-making forays. (He was described by one financial reporter in the following way: "Delaney has a largish ego which is not unattractive. He always thought he'd be successful in business. 'I enjoy the art of business and I think I'm truly good at it. I've made a lot of money at it,'" he was quoted as saying in 1990).[6] His experience is solidly in financing, where his business philosophy and character intersect clearly: "It's a fairly facile business, dealing with the here and now. You need to be quick, and decisive. And occasionally I was pretty rough. I was a fairly intolerant taskmaster," he confided in the Fall of 1998.[7] The "Smiling Barracuda" label, one senses, was probably well deserved.

At the time of the move to take over Sherritt he was 47. The son of a career army man, he had been born and raised in Winnipeg. "Middle class, resoloutely middle class," is how he described himself to me. The flavour of his iconoclastic ways and independent approach to business were well captured in a Financial Times story of the time, where he was described as "The Smiling B., a.k.a Jaws, a.k.a Ian Delaney ... underwriter to the stars, dealmaker nonpareil, polymathic multi-millionaire ... He was thrown out of the general-arts program at the University of Manitoba for unspecified rabble-rousing and a poor attendance record."[8] And now this brash, self-confident financier, totally lacking experience in the mining business, was leading the charge to turf out not only the newly appointed CEO (possessing a wealth of related management experience), but also the entire Board of Directors of this decades-old Canadian refinery. The odds surely were against Delaney. His situation was described well in the Financial Post: "He will be under the gun. He, Bruce Walter, his hand-picked executive, and his board of directors have been given an onerous task: revive the company, get a game plan in place, but, more importantly, get the share price up ... If he can turn the fortunes of the nickel and fertilizer refiner, he will have demonstrated, yet again, the advantage of being in the right place at the right time. Combine that luck with sufficient intelligence and considerable business savvy and Delaney has become a wealthy chap."[9]

In July of 1990 the Delaney-Walter-Sprott group cranked up its activities to take over Sherritt Gordon. They met on the 10th with Charles Heinrich (President and C.E.O.) and Edward Donegan, Chairman of the Sherritt Board, to test the waters of the company's resolve. At that time they confidently claimed to own over 5% of the total shares of Sherritt. They expressed their dissatisfaction at the company's direction, and coolly demanded that both Donegan and a

majority of the Board of Directors be replaced by their nominees (a list headed by Delaney himself). Understandably the Sherritt team was not amused, and indeed refused to consider their demands seriously. They believed that if Delaney, Walter and Sprott were really serious about taking control of the company, they should follow the traditional approach and make a cash bid to all the shareholders. (Delaney rejected this strategy as old-fashioned, arguing somewhat fancifully that his way was better: "What we're going through ... is the most prosaic and pristine example of corporate democracy that we've seen in 20 years in Canada. We're just having a straight out-and-out proxy fight."[10] Because the Delaney faction (through their company Canada SherGor Enterprises Inc.) owned the minimum percentage of votes required to call an extraordinary shareholders meeting, however, the management was obliged--according to the Business Corporations Act, 1982 (Ontario)--to call a shareholders' meeting. This was exactly what the dissidents' group had expected, and in fact wanted, and soon both sides dug in for the struggle to win the hearts and minds of shareholders. Battle was about to commence.

On August 3, as was his legal obligation, Frank Piper, Secretary of Sherritt Gordon, convoked a special meeting of shareholders. It was to take place at 11 a.m. on September 19, at Toronto's Commerce Hall, and the three items of business on the agenda were all connected with the issue at hand:

(a) "To consider a resolution to remove from office the present directors of the Corporation;

(b) if the shareholders approve the resolution referred to in (a) above, to elect directors to fill the vacancies thereby created; and

(c) to transact such other business as may properly come before the

Meeting or any adjournment or adjournments thereof."[11]

Behind this rather staid legalistic summary lay many concerns, and profoundly raw emotions, since two radically different interpretations as to the future direction of this company were being placed before shareholders for their consideration. It was unclear to many which side would prevail, although the incumbents clearly held the advantage. The battle lines were drawn, with Sherritt Gordon on the one side, and "the three musketeers" as the Financial Times called them, on the other. National business media tuned in as the rhetoric started flying, and the venerable Canadian mining company became the focus of much attention, all of it discomforting. The power struggle was about to begin.

Sherritt Gordon Goes On the Attack

While the company management must have felt quietly confident about their collective ability to overcome the challenge from the Delaney group, they also took the threat very seriously. They of course took some comfort from knowing that the odds were clearly stacked in their own favour, for several reasons. First, they held power, and indeed most of the directors of the Board had been around Sherritt for several years. In fact the Chairman of the Board, Edward Donegan, had been a member of the Board since 1968. They were also experienced in company matters, and as a glance at their résumés shows, several had extensive mining experience (whereas the Delaney group were essentially financial advisers with extremely limited mining experience). Moreover, while the company returns were mediocre at best, Sherritt had recently experienced--in 1988--a bumper financial year. As a result the Board hoped that shareholders would remember that with pleasure--and ignore the poor returns on the first half of 1990.

Finally, the odds against the challengers were great indeed--of 18 such proxy vote challenges in the United States that year, only three had succeeded, when "dissidents [had] been handicapped by their inability to convince the shareholders their track record [was] better." [12]

Sherritt Gordon sent out an "Information Circular" to all shareholders, providing them with their side of the argument. In essence they argued that the company was making solid headway in its business course, and that to tinker with that course--much less alter it drastically--would be sheer folly. This was the collective opinion of the Board, one that all its members firmly held, it stated with conviction. As a result, if the first resolution--concerning the appointment a new Board--were to be passed, then all incumbent members stated that they would immediately tender their resignation. In this was they hoped that their threat of a mass exodus, leaving a major vacuum in managerial experience, would convince shareholders to stay the course. They refused to countenance any of Delaney's proposals, which they thought were wholly inappropriate, and in fact downright dangerous for the company. The implicit message was: if you don't want your investment to become worthless, support the Board in defending Sherritt Gordon's collective interests against these brash interlopers. Otherwise, it was implied to shareholders, the financial cowboys would carve up the company and sell off the profitable sectors to make a quick profit.

The Information Circular also sought to destroy the credibility of the Delaney group--who were presented as ignorant neophytes in the Sherritt document. "They had no specific suggestions with respect to their areas of criticism and were not prepared to discuss their long-term plans for Sherritt. (In response to a question on possible sources of feed for the nickel refinery, they stated that they had no sources but 'had a lot of contacts on Bay Street and Wall

Street'"), the Sherritt management drily informed shareholders. Clearly, they indicated, the Delaney approach left a great deal to be desired: they might be excellent financial advisers, but they sorely lacked any pertinent managerial experience in the metals business.[13] Was that what shareholders wanted at such a critical juncture for the company?

Having sought to undermine Ian Delaney's credibility--because of the lack of pertinent experience that both he personally and his nominations for the Board of Directors shared--the Sherritt Gordon management then emphasized positive developments in the company. Things were nowhere as critical as Delaney and his followers had suggested, they intimated. Five interrelated issues were presented to shareholders in order to support this position. Sherritt, it was noted, had: "strengthened its existing businesses, divested its unprofitable operations, considerably improved its balance sheet by reducing long-term debt and retiring preferred shares, developed viable long-term strategic plans and strengthened management of the Corporation" (p.2) "Steady as she goes," appeared to be the course counselled by the Sherritt management to the increasingly nervous shareholders. Admittedly there had been some poor years for the company, but to a large extent they claimed--with some truth--that this was largely due to the cyclical nature of the mining business, over which they had no control. In any event, things had turned around and future prospects looked encouraging indeed. In sum, the overall strategic direction being pursued by the company was the correct one, and in time shareholders would realize the benefits of this sensible course. By contrast, Sherritt stated, Ian Delaney had no idea where he would take the company: the Requisitioner (Delaney and his colleagues) "has not indicated what its plans are or where it will take your Corporation. The inference to be drawn is--just give us the keys and then we will think about where we want to go"(p.6). This was viewed

as a downright irresponsible course of action, and shareholders were counselled not to provide Ian Delaney with the "keys."

Moreover, they were reminded, recent corporate performance by Sherritt had been good, at least according to the company circular. (Indeed, "it is this solid financial and business base which makes Sherritt so attractive to the Requisitioner. The Requisitioner now wants to take advantage of this base," the company noted with some misplaced smugness on page 7). The previous two years had been profitable ones for Sherritt. Some $200 million in cash flow had been generated. There had also been significant debt reduction (some $134 million of this cash flow had been used during this time to reduce debt from 66% of total capitalization to 36%). And, in order to reduce the cyclical swings of prices paid for its two basic commodities, the company sought to develop more stable value-added businesses, especially coinage, chemicals, and specialty metals. As refining companies went, the circular noted, Sherritt was clearly making progress, diversifying its products as a hedge against market downturns, at all times mindful of shareholders' desires. It was not a bad list at all, and was meant to illustrate that management was fully in control.

The Achilles heel of the company position, however, was the age-old problem of a lack of feed for its refinery--a fact which Charles Heinrich and the Board knew only too well. For some time the need for feedstock for the Fort Saskatchewan refinery had been of particular concern. Obviously, if there was nothing to refine, there was no product at all--and the company would go broke. Between 1980 and 1989 INCO Ltd. had provided some 60% of its feed, but at the end of this contract it had proved difficult to source new stock. Even worse, the future prospects looked dim indeed. The company tried to put a brave face on the situation, claiming that they had

indeed replaced most of the feed, and were actively seeking possible sources around the globe. As a result they expected to operate the refinery at 80% of capacity. "This has been achieved through an aggressive world-wide commercial effort involving a number of Sherritt's senior management. Feed supplies currently come from 10 countries including a recent supply contract from the Soviet Union"(p. 13). Unfortunately for the Board, however, the refinery was in fact closed down at the time of this power struggle, a situation that cast a sombre light on this debate taking place in Toronto's financial district more than two thousand miles away. An unspoken fear about future supplies was thus illustrated by the drama of the closed plant at Fort Saskatchewan.

Perhaps the most anxious person in the Sherritt camp was CEO Charles Heinrich. He had only been with Sherritt some six months, following a long and successful career (from 1966 to 1989) with Alcan Aluminum Ltd, where he had ended his career as president of Alcan Pacific Ltd. Clearly he was not to blame for the lack off feedstock at the conclusion of the INCO contract, nor was he directly responsible for the refinery in Fort Saskatchewan being closed down for the summer. Nor were the disappointing returns for the first half of 1990 (its earnings fell by 88% during that year to $Can4.1m ($US$3.5m) on revenues of $Can195.5m),[14] the result of any long-term policy which he had implemented. He had obviously come to Sherritt with the best of intentions, seeking to add another successful chapter to his illustrious career. Suddenly, when he should have been in a secure position, he found himself--and his Board--being challenged by a coterie of outsiders, financial managers without experience in an area where he was eminently qualified. At a time when he should have been strengthening the company, and seeking to secure badly-needed feedstock for Fort Saskatchewan, he had discovered that instead he had to focus his

energies on shoring up his defenses, retaining control of the company, and leading a campaign to ensure shareholder loyalty. Surely he couldn't have imagined that an attempted coup would take place within months of his accepting the position.

The Sherritt management team sent several circulars to its shareholders, seeking to win their support (and get them to vote with "blue" proxy forms in favour of the Sherritt management. The Delaney camp had green forms). Writing on August 31, 1990, Edward Donegan, Chair of the Board, noted firmly that Canada SherGor "have provided no specific plans for Sherritt and the general direction they have indicated is no different from the strategic plan already being implemented by Sherritt's board and senior management. All that shareholders are being offered is a new board and senior management who bring no applicable insights or experience to Sherritt." In another letter (dated the same day) to a different group of shareholders, Donegan increased the emotional pressure upon them.[15] Delaney and Walter were seeking "to remove the present directors from office and elect their nominees. By this means, they are attempting to take control of **your company**" (emphasis added). The letter continued, again seeking to personalize the Canada SherGor Enterprises Inc. strategy: "We believe it is critical to your investment that Canada SherGor's attempt be defeated."[16] Many industry analysts, while concerned with the mediocre performance of the company, tended to agree with Donegan. Typical was this analysis from Scotia McLeod: "Sherritt has issued a comprehensive and, in our opinion, well reasoned Information Circular in defence of management and company performance ... Until SherGor presents convincing proposals, we suggest that shareholders have no other course of action but to reject the resolution to oust directors and management."[17]

With less than two weeks to go before the proxy vote, Edward Donegan, Chairman of the

Board, again took the offensive, mailing a 7-page summary of the official Sherritt position to shareholders. This time, perhaps because the company was a little more nervous, the tone was more aggressive and forceful. The first page poured scorn on the Delaney approach: "They have no plan... They mimic the strategy being implemented and expanded now... They propose a chief executive whose record shows he lacks the commitment to build long-term shareholder value."[18] Donegan criticized Delaney's nominations to the Board of Directors, and emphasized their clear inexperience in the metals industry, contrasting them with the Sherritt board that had been together for many years. He called Delaney's group inconsistent, lacking in a fundamental strategic plan, ignorant of the metals business, and without either a new approach or a long-term view. Voting for the Delaney and Walter proposal, he noted with conviction, was therefore absolute folly: "With no apparent understanding of what the present board has accomplished, with no experience in Sherritt's business, and with no strategy, they are asking the shareholders to entrust Sherritt Gordon to them. They are asking for blind faith"(p. 2).

In the popular media the Sherritt Gordon executive was even blunter. In one interview in the Globe and Mail, for example, Delaney and Sprott were dismissed out of hand by Charles Heinrich as "fast-deal artists who have never run an operating company." Sprott, he intimated, was merely seeking trading commissions that might result at the low end of the business cycle. He roundly scorned their initiatives for the company: 'Two stockbrokers just walked into my office and they want the keys to the company because they can run it better, and we should just trust them ... It's a lot like letting a kid take control of a bus full of people--you can only hope he gets them there in one piece." [19] Clearly there was not too much love lost between the two sides.

But he was not finished. Their management style was all wrong for the company, he

noted: "Sherritt is a complex operating company that needs full-time, hands-on, experienced management. It cannot afford senior executives who must rely on line managers to actually run the company"(p. 5). On a personal note Donegan hinted at Delaney and Walter being excessively greedy, and he criticized their lack of long-term commitment: "Everyone agrees that building shareholder value at Sherritt will take time and a long-term management commitment. Sherritt cannot afford to be put into the hands of someone like Delaney who has held at least six principal jobs in 10 years or Walter who has been in business only three years"(p. 6). Obviously the gloves were starting to come off in the proxy struggle, just ten days away.

The Young Turks' Strategy

In many ways the basic difference between what Delaney and Walters wanted, and what the Sherritt board sought, revolved around a basic disagreement about management style and philosophy. Donegan and his colleagues were comfortable with the old boys' network, and their team of tried professionals, an approach which for them had functioned reasonably well for several decades. In his short time at the company the new President (Charles Heinrich) too sought only slight amendments to the traditional approach of the company, and his style mirrored the way things had been at Sherritt for some time. One financial reporter captured well the workstyle of the Sherritt management of the day: "In late May [1990], Heinrich addressed a group of about 40 investors. Reportedly, his presentation was excruciatingly boring. But Heinrich comes from the old school that says you don't need flash to run a company well."[20]

Delaney was from the opposing school of thought, and in addition possessed lots of "flash." He lost no time before going on the offensive. Delaney and his colleagues, according to

one insightful commentator, wanted to "shake things up a little. They're hoping that shareholders, particularly a rather staid collection of institutions that hold more than 70% of the stock, are up for a little rock 'n' roll."[21] His style was clearly radically different from that of the Sherritt board, but would that prove sufficient to turn the company management on its collective head? Moreover, did he have the ability to woo the shareholders--many of whom appeared to prefer the (safe, albeit uninspiring) status quo? Traditionally institutional shareholders steered well clear from controversy, seeking a solid--if unspectacular--return for their clients. "Safety first" was their slogan--and indeed in the past they had been reasonably well served by their investment. And so, while they might well have been displeased with the recent return on their Sherritt investment, their implicit acceptance of the cyclical mining industry standard (and possibly investment lethargy as well) did not augur well for the radical break with the past that Delaney and Walter sought. It was widely expected, therefore, that they would ignore the Delaney approach.

Yet Canada SherGor Enterprises was not intimidated by this (as well they might have been), and soon set out clearly their own analysis of the shortcomings resulting from the traditional approach of the board. In their own "Information Circular" (sent to all shareholders), they sought to present themselves as reasonable managers who possessed the investment skills and strategic vision needed to revitalize Sherritt, and bring about improved returns for all shareholders. The first paragraph of their Circular pulled no punches in its analysis of the company: "For over a decade, to be a shareholder of Sherritt has not been a rewarding experience. Possessing a solid asset base, the company has been run unimaginatively and without a strategic direction designed to enhance shareholder value. A board of directors with

little or no financial stake in the company has been content with an erratic and generally poor earnings performance and poor share performance."[22] It was therefore time for a different approach. The question was: were the shareholders prepared to buy into the Delaney vision, and did they believe that their experience had "not been a rewarding experience"?

The covering letter from Canada SherGor Enterprises Inc. to shareholders was direct and forthright. In it they complained of many specific shortcomings of the Sherritt management approach. In an intelligent strategy they explained the basic reason for calling the meeting, seeking to provide shareholders with a different vision from the time-honoured (or rather, as they saw it, outdated) approach of Sherritt. In a bold move they turned on its head the central argument of the Sherritt management. They had requested a meeting of shareholders "not to take control of Sherritt from the shareholders of the company, but to give you the opportunity to exercise your control to put in office a new board who will provide strategic direction to increase shareholder value." Rather than depend upon metallurgists and lawyers, they were proposing "outstanding businessmen" to fill the position of company directors--all with the objective "to deliver improved returns to shareholders." By appealing (twice in two paragraphs) to the financial improvements that would result for shareholders,[23] and by emphasizing that the solution to Sherritt's problems lay in essence with better financial management and a revitalized management, Delaney sought to convince voters that they had a right to expect better financial returns than they had been receiving, and that this would only come about with improved financial management, and a new strategic vision for the company. He also reminded them about the idle plant at Fort Saskatchewan, and the dismal prospects for growth unless steady feedstock could be found--since otherwise their entire investment would be in danger.

The Delaney group countered the position of the Sherritt management with arguments that were framed in a more combative style. Few adjectives were spared to emphasize their concern at the "widespread dissatisfaction" and the "dismal returns"--both of shareholders. They criticized the "erratic earnings" and "inadequate share performance" which resulted, they claimed from "deficiencies in strategic planning." It was now time to move on, and to pursue a new direction--one which only they could provide. Sherritt of the 1990s was very different from its counterpart of the 1970s or even the '80s--and it was time to recognize that fact, and move on.

One meaningful criticism made firmly of the incumbent Board was their lack of commitment in Sherritt Gordon itself, a point which the opposition exploited well. Delaney and Walter's Canada SherGor had acquired 1,350,000 shares (approximately 5.4% of the outstanding shares), needed in order to be able to call the shareholders' meeting. It is worth noting that, by contrast, the board held remarkably few shares. Eric Sprott, Delaney's partner in this takeover battle, claimed that, in fact, "current board members hold less than one-twentieth of one per cent of Sherritt's equity."[24] Ian Delaney criticized in outspoken fashion the clear lack of commitment of the board, and challenged Sherritt president Heinrich: "If he wants to run the company, he ought to invest in it."[25] Writing in the Globe and Mail, Deirdre McMurdy put this in perspective: "One of [Delaney's] strongest indictments of the existing regime is its meagre investment in the company it runs. Of the 25 million outstanding common shares, the chairman of the board owns 1,500 and the new president and chief executive officer owns 1,000. It is considered rudimentary that corporate management gains enormous credibility with outside investors when it shares in the risks--and rewards--of owning stock. And nothing puts fire in the bellies of managers like owning a piece of the action."[26]

In a policy of damage-control, Sherritt sought to emphasize that Canada SherGor had in fact risked remarkably little, since some 1,200,000 of these shares were covered by hedging arrangements. The implication therefore was that Delaney, Walter and Sprott were not seriously risking anything, to which the dissident circular retorted: "The reason the position was hedged is simple: Canada SherGor believes that the market price of Sherritt shares will decline if changes are not made to the executive management of the Corporation"(p. 4). Put more bluntly, Delaney was quoted in the Financial Times as saying that if his proposal was not accepted by shareholders at the September 19 meeting, he was very concerned about the value of Sherritt shares: "If we don't win ... we think the thing's gonna tank."[27]

There were two core issues identified by Canada SherGor, the poor record of the current board of directors and, by contrast, the approach led by "a new entrepreneurial executive management" (p.5) which they proposed. The incumbents were criticized for several reasons: poor shareholder returns; a lack of planning to deal with "the serious problems confronting its core businesses"; a refusal to build up sufficiently the "non-commodity businesses" of Sherritt (so as to reduce exposure to erratic commodity cycles); dependence upon an old strategic approach; and a lack of personal economic investment in Sherritt. By contrast, Canada SherGor offered innovative solutions to problems facing the corporation's core businesses, a commitment to greater diversification, and a new management style "with a successful track record in providing strategic direction for operating businesses and in delivering shareholder value"(p. 5). Later in the circular, the Delaney group again raised the issue for a new, more dynamic group of directors: "the average length of service on the present board of directors is 7.5 years and the current Chairman of the Board has served on the board for 22 years"(p. 13). Clearly, they

suggested, it was time for a radically new management approach in order to replace the stodgy, outdated style of the incumbents. Times had changed, and so should Sherritt. "The assets and balance sheet of Sherritt are good, but the company has been reluctant to move with the times," summarized Ian Delaney in an interview with the Globe and Mail.[28] It was something which he and his group looked forward to with some relish. The question was: would the shareholders agree?

Of particular interest was the record of the current board of directors which, not surprisingly, Delaney and his partners condemned. Poor shareholder value was the result of poor market performance, they claimed. Moreover the board's defence that mining of necessity followed cyclical commodity prices was rejected as being too facile an argument: this was precisely why it was necessary to pursue vigorously more strongly value-added initiatives and other spin-offs, in order to minimize potential losses. Sherritt prices had been in the doldrums for far too long, the dissidents emphasized: "The common shares of Sherritt have significantly underperformed the shares included in the TSE Index over the past decade,"(p. 6) they charged. Indeed they provided a graph to illustrate that in no quarter for the past decade had Sherritt shares provided returns greater than--or even equal to--returns on shares of the TSE 300. This, they claimed, was intolerable for any self-respecting corporation.

Moreover, unless there were a radical shift in direction in the near future, Sherritt shares continued to appear doomed to decrease in value. Quoted in the Edmonton Journal, Ian Delaney noted that "Performance has been very disappointing, in share value and dividends... The company is basically where it was two years ago--share prices have been as high as $15 and are now $7.50 or thereabouts."[29] A month later, with the Fort Saskatchewan plant still closed, there

was further evidence of financial difficulties with the company: Sherritt earnings fell to 16 cents a share for the first six months of 1990, when compared with $1.26 for the same period in 1989. At the same time, as a reporter for the Edmonton Journal noted, Sherritt's share price "closed Tuesday at $7.38, down from a 52-week high of $14."[30] Finally, net earnings for the same period were reported as some $6 million, down from $17.1 million over the same period in 1989.[31] Clearly the combination of the idle Fort Saskatchewan refinery and declining financial returns played into the hands of the Delaney group, which understandably lost no opportunity to emphasize the uncertain future facing the company. While the "old guard" continued to call for a steady, rather conservative policy, maintaining that things would improve, Delaney hammered away at the declining value of the (already undervalued) Sherritt stock, and sought to fan the flames of anxiety among worried shareholders, who must have seen this open debate in the pages of the main newspapers with mounting concern.

One of the nuts-and-bolts issues which Canada SherGor emphasized was the urgent need to resolve the serious problems facing the core industries of Sherritt, and in particular to ensure long-term nickel feed. The current management had showed that it was incapable of resolving this vital problem. The metals division of Sherritt accounted for some 62% of 1989 operating earnings, and yet it was being poorly directed. The end of the 10-year INCO contract, and the inability of the board to obtain feedstock, clearly meant major problems for the company. It was all well and good to talk about the intention of increasing the annual capacity of the refinery from 53 million pounds to 75 million pounds. The more important question, however, was whether the management was able to even meet the current refining capacity, given the fact that they had been unable to find sufficient feedstock, and as a result had been obliged to close down the

refinery temporarily. Why had they not ben able to secure a steady alternative source in the period after INCO had advised them that they would not need Sherritt's refining services? And what led shareholders to believe that--despite all their claims about superior mining experience--they could do so now?

Another area where Delaney and his supporters diverged from the Sherritt board was on the issue of commercial diversification, and particularly with regards to how to maximize the specialty metals and industrial chemicals divisions of Sherritt. Both sides agreed with the basic concept of minimizing dependency upon two commodities (metals refining and fertilizer) by developing other value-added products. Yet the Delaney group took issue with the fact that company rhetoric had not been accompanied by much movement on this initiative, noting "the record indicates that the present board is proceeding on too small a scale to lead to material growth in revenues or earnings, or to affect in any material respect the exposure of Sherritt to commodity cycles"(p. 12). In other words, Sherritt Gordon management talked a lot about spreading their eggs in a number of nests--but had done remarkably little about it. They pointed out that the annual revenue had increased by only $2.25 million from 1988 to 1989 (and indeed had decreased "substantially" in the first six months of 1990); and that profits in the external technology division had declined since 1988. In synthesis: not only had the company proceeded on too small a scale, but also its limited efforts had not led to any real increase in business. Clearly their approach lacked in imagination, and a new, revitalized strategy was required--as soon as possible, since otherwise Sherritt shares might plummet in value.

It is obvious that the question of the metals division was the core issue concerning the profitability of Sherritt Gordon. Yet an analysis of the basic proposals put forward by both the

board of directors and the Delaney group in fact reveals remarkably similar goals and proposals in this regard. (One slight difference was the commitment on the part of the Delaney group to "aggressively review possible joint ventures and operations in nickel mining and exploration"(p. 17), clearly the most pressing need for the company, whoever ran it). The Board and Delaney criticized each other (correctly) for their inability to find replacement feedstock; and they emphasized the need to strengthen the capacity of the metals division. Both sides, however, strayed little from rhetoric, and neither was particularly strong on specifics. Instead it all came down to the question of vision. On the one hand the company believed that its strategy was working and that it only needed a little more time, while on the other Canada SherGor Enterprises believed that more creative, novel approaches were urgently required in order to turn the company's futures around. Canada SherGor clearly believed that the incumbent board was excessively stuffy and conservative, lacking the energy and the ability to plot a different course. CEO Charles Heinrich, they claimed, had been put in place to follow the board's strategic plans and not--as was needed--to chart a new direction. That could only lead to a deterioration in the company's balance sheets, they predicted.

So where was this new strategic direction to come from? An analysis of the nominees for the board from the Canada SherGor side reveals a significant difference from the incumbents. As noted earlier, the board headed by Edward Donegan (a lawyer with a prominent Toronto company) consisted of people with backgrounds in geological engineering, metallurgy, agricultural chemicals, business, chemistry, and mechanical engineering. By contrast the Delaney team were largely financiers, investment counsellors, business managers and lawyers, most with extensive experience in managing large capital venture and financial projects.. There

was also a conspicuous absence of nominees with experience in the fertilizer and nickel businesses. Yet far from being a major defect in their programme, the Delaney group claimed that this was in fact an advantage, since all "had a successful record of providing strategic direction for operating businesses while relying on line management for hands-on operational decisions." A clear difference was the ability for the suggested new board to manage the company's affairs more closely with Sherritt management, and to reduce top-down instructions. It was the line management who were most familiar with the corporation's operations, and therefore their input was to be sought more consistently. In the last analysis Delaney, Walter and Sprott appealed to shareholders to vote for their financial acumen, which was needed in order to get the company back in a healthy financial situation--"to strengthen the balance sheet by replacing short-term bank financing with more stable long-term debt and equity financing," as they put it (p. 17). Clearly this was something in which the board nominees believed that they had more experience. The others obviously had decades more mining experience than Delaney and his backers--but what good had that done the company as it faced a summer shut-down?

The Actual Vote, and Its Impact

Whoever believes that commercial history is dry or dull needs only to look at the cut-and-thrust of the tensions surrounding the polarization of this hostile take-over bid to recognize what an error that is. The tension around the challenge, as well as the constantly uncertain outcome, makes for much drama and melodrama. This particular episode didn't start out that way, though, since for many sides it was clear from the outset that the incumbents were likely to win the day. The official notification of the meeting was somewhat verbose: "Notice is hereby given

that the Requisitioned Special Meeting of shareholders of Sherritt Gordon Limited will be held in Commerce Hall, Commerce Court, Toronto, Ontario on Wednesday, the 19th day of September, 1990 at 11:00 o'clock in the morning." As mentioned earlier, the three issues on the agenda all had to do specifically with questions surrounding the removal of the directors of Sherritt and the election of their replacements. Prior to the actual meeting, letters had been sent to all shareholders, inviting them to attend and, for those unable to do so, requesting their vote by proxy. Sherritt sent out information packages, inviting shareholders to allow company officials Donegan, Heinrich or Piper to act as their proxy. Canada SherGor Enterprises Inc. (known in official parlance as the "Requisitioner") nominated Delaney, Walter and Sprott "as proxyholder to attend, vote and act for on behalf of the undersigned" as their official representative.[32]

Both sides had mailed out their prospectuses, according to Government of Ontario regulations, and as noted above had sought to discredit the other (while convincing shareholders that they in fact held the appropriate strategy for the development of the corporation), and now it all came down to the actual counting of votes to see which of the two sides would carry the day. One of the earliest things that had to be done was to validate the proxies, with every one being appropriately scrutinized. It was a process carried out under the watchful eye of a veritable army of lawyers--all prepared to complain at the drop of a hat about any perceived irregularities. In the end only three proxy ballots were invalidated--two because the signature was either illegible or the person had not signed, while the largest--submitted by Kathryn Delaney (wife of Ian Delaney)--had been submitted too late. One can imagine that the would-be President was not amused by his wife's tardy submission. From the perspective of Canada SherGor, it was an inauspicious beginning.

The atmosphere in the basement of Commerce Hall in Toronto was exceptionally tense. There were some 300 people gathered there, media correspondents scurrying around to obtain a business scoop (and then rush out to meet their deadlines), corporate shareholders, an army of lawyers, and the principals themselves. "Absolute bedlam" is how Corporate Services Manager Carolyn Hunt describes the atmosphere on the day. "The place was packed to the rafters with shareholders and journalists overflowing the room. It was totally impossible to squeeze anybody else into the hall". It was soon clear that, in the advance ballot, Sherritt Gordon had the majority of proxy voters in its pocket--in all about 70% of all eligible voters. Obviously things didn't look good for the challengers. One former Sherritt Gordon executive of the time told the author that the management team felt supremely confident that day: "We thought that it was a slam dunk--and that Delaney was up the stump," he noted. His optimism was misplaced, however, since it was still unclear how the large institutional shareholders would vote. This was crucial, since a handful of them held some 40% of the total shares. "The long and the short of it is that you don't need to talk to a whole lot of people to lobby for their support," Ian Delaney told the author in 1999.

The turning point came with the issue of both sides having the opportunity to addressing the meeting, and win over the hearts and minds of wavering shareholders. Given the high stakes, however, and the fact that the old guard appeared to have the battle already won, the question was: what strategy to employ? Delaney and Walter had decided early on that their tactic would be not to say anything at the meeting, but instead would allow the Sherritt side to pour out their frustration at the financial upstarts who had attempted to wrest control from the "serious" managers. In this way they hoped that the resulting "overkill" might convince those hedging

their bets that the Delaney approach in fact offered greater opportunities for the future. True to form, and as expected, CEO Heinrich vented his spleen, pouring scorn upon the Delaney group. In fact he termed them a collection of "'financial dilettantes' who had offered no real alternatives.." He continued: "Most of what they suggest is part of the strategy already in place. The few specific changes they suggest have been considered and rejected by your management as impractical, unrewarding and possibly dangerous to the future of Sherritt."[33] Eight years later, Delaney remembered clearly the tension of the day: "In all, he heaped abuse on us for some fifteen minutes."[34] Unfortunately for the old guard, this abuse turned several key shareholders against them. Delaney's decision not to address the shareholders (he was offered 15 minutes to make his case), stating that investors knew well the problems affecting the company, in fact proved to be a wise strategy.

What Sherritt management did not know was that many corporate shareholders were in fact displeased with their stewardship of the company--and while they had expressed their support for the management initially, it was clearly "soft" support. Working in favour of the winner--whoever that proved to be--was the traditional institutionalization of savings in Canada, which means that the overwhelming proportion of any public company is in the hands of institutional investors. As a result neither side had to talk with too many people in order to communicate with the majority of shareholders. In the case of Sherritt Gordon at the time, this transferred into just six or seven major institutional shareholders owning over half the shares of the company. (The same situation prevails, with the top three shareholders of Sherritt owning some 40% of Sherritt shares). If Delaney could win over some of these major stakeholders, he just might wrest control of the company away from Heinrich; however, if they continued to park

their shares with the incumbents, there was absolutely no hope for Delaney. It was indeed a long shot--but it was just feasible.

As things turned out, several large institutional shareholders were already unhappy with the direction being taken by Sherritt Gordon, but preferred not to expose themselves initially by voting in favour of the dissidents. Instead they waited until the actual meeting, where they took the measure of both sides, eventually voting to support the Delaney approach. Jennifer Wells of the Financial Times comments upon the dissatisfaction of institutional investors, and her comments appear pertinent to this case. While in general they had given management of companies a wide berth, "That's not to say they're happy. 'In Canada, if you're an institutional investor, you're a captive investor,' says the manager of a multi-billion-dollar pension fund that has Sherritt among its holdings. Most in the business view the marketplace as frustratingly illiquid. Their objective--the dreary long-term appreciation and the preservation of capital--gets them stuck in the investing mainstream."[35] This was precisely the concern which the Delaney group hoped to tap--and exploit--and ultimately they were successful. Delaney remains convinced that his tactic of saying nothing at the meeting worked in his favour, while the invective dumped upon him by the Sherritt management in essence alienated some corporate voters, who voiced their dissatisfaction precisely by revoking their earlier vote of support for the Sherritt management and instead supporting the Delaney group . These voters were clearly concerned at both the lack of progress made by the company's leadership and by the excessively arrogant approach employed by it. Delaney talked about the day in question and expressed his own concerns: "The environment was absolutely electric. Sherritt Gordon management thought that they had things sewed up, but by mid-morning there was a palpable wave of support for our

proposal," he remembered with nostalgia.[36] Counsels for some of the larger shareholders were in fact instructed to revoke their earlier proxy ballots. But still Delaney worried if he had enough votes, since it was unclear for some time which way things would go.

The "wave of support" to which Ian Delaney referred, although not a tidal wave, turned on its head the 70-30 lead of the Sherritt management in the advance proxy poll. After the votes were counted it was found that 52% of those casting ballots voted in favour of the Canada SherGor proposal to replace the CEO and Board of Directors. (The actual figures were 11,933,788 to 10,551,114).[37] Clearly, this was a major upset for the Canadian financial community.[38]

So what happened after the votes had been counted? Actually it was quite an anti-climax. Ian Delaney "had been preparing a 'Nice guys finish last' speech, and preparing a graceful loser approach,"[39] but was suddenly obliged to drop this strategy and swing into action with another. He immediately adjourned the meeting, announced the new members of the Board of Directors, and then--all of five minutes later--convened a meeting for the new board. The coup was swift, and as bloodless as such a radical redirection can be. The former Sherritt board was replaced completely, the CEO was obliged to step down, and the new regime was immediately put in place. The saddest man in the hall was understandably Charles Heinrich, deposed as company president in such dramatic fashion after just a few months in the job. To add insult to injury, Heinrich had just sold his house, preparing for the planned move of the company's head office to Edmonton.

Unfortunately for Sherritt Gordon the problems facing the corporation remained firmly in place and, while there was a new management that had promised to bring in an innovative style

and new strategic direction, it was unclear as to what impact--on a long- or short-term basis-- this would have upon the company. Delaney notes the many problems that awaited him when he turned up for week the next day: "The nickel refining business was shut down, because there was no nickel to refine. Commodity prices were in decline. And, without a radical change of direction the company would have been insolvent in five months. In short, it was a real mess."[40] The first order of the day was to do what his predecessor had been unable to do--find nickel feedstock--since without it there was clearly no hope for the company. That elusive search for the ore would lead the venerable Canadian company to a fascinating new stage in its history. Once again Sherritt was to show the versatility for which it had become famous, both establishing a major joint venture in revolutionary Cuba--the first Canadian company to do so--and diversifying into a number of industries in which Sherritt had no experience. Life was soon to prove extremely interesting, and challenging. "It was all very exciting," Delaney told the author, "and tough times in business are always the most exciting times." He was soon to put that thesis to the test, as Sherritt Gordon embarked upon the most challenging period of its history.

NOTES

1.Jennifer Wells, "The Predators' Gall," Financial Times, August 27-September 2, 1990, pp. 8, 10.

2.Horsham was an investment company with a controlling interest in American Barrick Resources Corp. In 1989 it had revenues of approximately $US 2 billion, and net earnings of some $60 million. In November 1988 Horsham acquired Clark Oil & Refining Corp and other assets of Apex Oil Co. for $454 million. Delaney therefore had substantial investment experience before seeking to take over Sherritt Gordon.

3.Interview with Bud Kushnir, Fort Saskatchewan, June 7, 2001

4.Interview with Ian Delaney, Sherritt International offices, Toronto, September 28, 1998.

5.The role of Newmont was a key element in the history of Sherritt. As noted in an earlier chapter, they had provided investment capital at a crucial stage in the company's history. Their overwhelming influence, however, had often been a negative factor. Ian Delaney and his partners made reference to this, as did existing president, Charles Heinrich: "while the dissidents may have had legitimate complaints about the poor performance of Sherritt a few years ago when the board was dominated by out-of-country Newmont directors, Sherritt has been taking steps to get in shape." See Jade Hemeon, "On the attack: Investor group tries this week to shake up Sherritt Gordon Ltd., perhaps even take control," Toronto Star, September 17, 1990.

6.Wells, p. 10.

7.Ibid.

8.Wells, op. cit., pp. 8, 10.

9.Barry Critchley and Susan Gittins, "Sherritt chairman leads charmed life," Financial Post, September 25, 1990.

10.Cited in Richard Siklos, "Sherritt Gordon faces down some unwelcome intruders," Financial Times, July 23, 1990, p. 11. To a certain extent his claims were supported by another financial observer, writing in the Globe and Mail: "Ian Delaney may not get a congeniality prize for his recent assault on the management of Sherritt Gordon Ltd.--but he may win a round of applause from the company's shareholders ...

But Mr. Delaney's blunt, 'U.S.-style' approach has done more than just ruffle the feathers of Sherrirr's executive team: It has tied together the loose threads of continuing debates on issues such as management ownership of stock, poison pill plans, maximization of share-holder value, approaches to asset valuation and long-term corporate strategy versus short-term performance." See Deirdre McMurdy, "Sherritt Gordon Assault May Jolt Other Firms," Globe and Mail, July 21, 1990.

11.See "Notice of a Special Meeting of Shareholders Requisitioned by Canada SherGor Enterprises Inc.," sent to shareholders by Frank I. Piper, and issued on August 3, 1990.

12.Lisa Grogan, "Sherritt struggle rings in new era of control battles," Financial Post, July 20, 1990, p. 23.

13.In the Information Circular, Sherritt Gordon went to great lengths to contrast the great experience of the then-CEO, Charles Heinrich, with Ian Delaney's clear inexperience: Heinrich "was hired by the board of directors with a mandate to aggressively expand and execute the Corporation's strategic plans... Mr. Heinrich has over 20 years of managerial and executive experience in the metals and manufacturing sectors and has the full support of an experienced management team as well as the present board of directors who have a range and depth of backgrounds that make them initially suited to direct Sherritt's growth.

In contrast, Mr. Delaney, proposed by the Requisitioner as Chief Executive Officer, has spent most of his career in the investment business and has no experience managing any of the businesses in which Sherritt is involved" (p.3). In an interview with the Toronto Star, Heinrich also referred to his challenger as a "stockbroker and deal-maker." See Hemeon, op. cit., p. C2.

14.See Bernard Simon, "Sherritt Gordon board ousted," Financial Times, September 21, 1990.

15.There were several drafts of this letter sent out on August 31, depending on whether registered shareholders had voted or not, and whether they had voted for or against the motion.

16.Quotations in both letters, signed by E.L. Donegan, Chairman of the Board are from letters to Sherritt shareholders, dated August 31, 1990. Archives of Sherritt International, Fort Saskatchewan.

17.Jonathan Challis, Graham Eacott and Lindna Rentner, in the "Company News" section of the Mining Commentary; Bi-weekly review of Metals and Miners, Scotia McLeod, August 14, 1990, p. 1.

18.All page references, indicated in the text, are from the letter "To Our Shareholders," written by Edward L. Donegan, Chairman of the Board of Directors, on September 7, 1990.

19.Cited in Deirdre McMurdy, "Sherritt Gordon battle heating up," Globe and Mail, August 7, 1990.

20.Wells, op. cit., p. 8.

21.Ibid.

22.All page references, indicated in the text, are from the letter "To: Holders of Common Shares of Sherritt Gordon Limited," and accompanying "Information Circular" (all one document), issued by Ian W. Delaney, Bruce V. Walter, and Eric S. Sprott on August 29, 1990.

23.In the Information Circular the dissident group again criticized the current Sherritt management: "They accept too readily the erratic and generally poor earnings performance of the Corporation and the consequent inadequate share performance ... In consequence, shareholders have suffered dismal returns"(p. 3).

24.Cited in David Holehouse, "Angry Sherritt Shareholders Demand Management Shakeup," Edmonton Journal, July 14, 1990.

25.Cited in Ron Chalmers, "Dissidents fail to win Sherritt war," Edmonton Journal, July 20, 1990.

26.Deirdre McMurdy, "Sherritt Gordon Assault May Jolt Other Firms," Globe and Mail, July 21, 1990.

27.Cited in Wells, op. cit., p. 8.

28.Quoted in Deirdre McMurdy, "Sherritt Gordon Comes Under Fire,"Globe and Mail, July 19, 1990.

29.Cited in Holehouse, op. cit.

30.Duncan Thorne, "Dissidents Pledge to Move Sherritt's Head Office," Edmonton Journal, August 15, 1990.

31.Allan Bolstad, "Sherritt Gordon Coup Attempt," Edmonton Sun, August 5, 1990, p. 45. For some reason different figures--albeit illustrating the same trends--were given in the Edmonton Journal: "The company earned $6 million, or 24 cents a share, in the second quarter of 1990--after losing $1.9 million in the first quarter.

Year-to-date earnings of $4.1 million are down from the $33.7 million earned in the first six months of 1990 because of lower fertilizer and nickel prices." See Ron Chalmers, "Second-Quarter Profit Earns Sherritt Reluctant Vote of Confidence," Edmonton Journal, July 24, 1990,

32.See the "Information Circular in support of the election of new directors of Sherritt Gordon Limited." The wording on the actual proxy form was all-encompassing: "This proxy confers discretionary authority upon the persons named herein to vote as they may see fit with respect to amendments or variations, if any, to matters identified in the notice of meeting and with respect to other matters, if any, which may properly come before the Meeting or any adjournment thereof."

33.Cited in Gail Lem, "Sherritt Gordon Holders Dump Board of Directors," Globe and Mail, September 20, 1990, p. B2.

34.Interview with Ian Delaney, offices of Sherritt International, Toronto, September 28, 1998.

35.Jennifer Wells, op.cit., p.8.

36.Interview with Ian Delaney, offices of Sherritt International, Toronto, September 28, 1998.

37.Figures provided by Gail Lem, op. cit., p. B1.

38.A reporter from The Financial Post put this in context: "A small group of rebel shareholders of Sherritt Gordon Ltd. yesterday staged a stunning corporate coup by winning enough support to oust the company's board of directors. It is believed to be the first time in Canadian business that an existing board has been knocked from power in such a manner by a minority group of dissident shareholders." See Victor Fung, "Rebel shareholders oust Sherritt board," The Financial Post, September 20, 1990, p. 1.

39.Interview with Ian Delaney, offices of Sherritt International, Toronto, September 28, 1998.

40.Ibid.

Chapter 6

Turning Things Around in the 1990s:

Sherritt Discovers Cuba

"Management had gone asleep at the switch during the 1980s," is how Ian Delaney sums up the reasons behind the company's declining fortunes. Nowhere was this more obvious than in a lack of feedstock for the Fort Saskatchewan refinery, which had shut the refinery down the summer before the hostile takeover bid war for the company erupted. When Delaney checked the company's books after taking over, he noted that "the problems were indeed as bad as we thought. The refinery was shut down because there was no material to refine, and the company would have been insolvent in five years. It was a real mess."[1] There were several reasons to explain the downward drift of the company in recent times. Key among these had been the management of the company, since as was mentioned earlier, for much of the previous fifty years Sherritt had been a major interest of the Newmont Mining Corporation of New York (which owned about one-third of shares until the late 1980s). For too long they had been dependent upon their financial backers in New York--and the end result had been mediocre management in Toronto.

Ironically for this proud mining/refining company the major hope for Sherritt's survival at the time came from the fertilizer side of the enterprise, but even there financing was essentially project-driven, with little noticeable stability. True, there was a solid cash flow from fertilizer sales, but capital could only be obtained for specific, low-risk projects. Moreover Sherritt found it extremely difficult to borrow the money that was badly needed to kickstart the company,

undoubtedly because of the low world price for nickel. And of course the hostile takeover by the brash Bay Street financiers had done little to shore up the company's credibility in the financial markets. Could the stockbrokers now taking over so dramatically (and with absolutely no experience in the refining business) successfully run this traditional mining company? Ian Delaney has noted that the company was generally well run at the plant level--but that there was a generally poor direction by the Toronto managers. In September of 1998 he explained to the author his hands-off management style. "Look, 95% of people in any corporation want to do a good job--so you don't have to go in and bust things up. Instead what you need are changes of direction on the margins--restructuring the financing, looking after the capital. In the case of Sherritt, we didn't go in and ask: 'Are you keeping your timesheets properly? Are your pencils sharp? Do you sweep the floors?' Management was already doing that. What we had to do was to make the business survive--and to do that we needed to get the refinery working."

Bud Kushnir, the Vice-President of the Fertilizer Division at the time of the takeover, confirms this in his interpretation of the Delaney approach. After being mismanaged (and micromanaged)[2] for so long, it took a while to realize that the plant managers now had a variety of new responsibilities: "Ian's attitude was: 'I don't know anything about running the plant--you do it.' It was a huge challenge for us, because we had to make decisions that we'd never made before. It was hard for us to adjust." Delaney made it clear that his strengths lay in financing, and not running the Fort Saskatchewan plant. As Kushnir put it to the author in June 2001: "Ian was a financier and a deal-maker. He opened our eyes as to what could be done. Look... you can actually go out and raise $600 million. We could never have done that. Ian's attitude was: 'You come up with the idea, and I'll deliver the cash.' And he's done just that."

For many industry observers, however, it was unclear at the time if his approach was the type of management that was needed to restore confidence in Sherritt operations. An insightful analysis was provided by journalist Anne Kingston: "Delaney is a big-picture kind of guy, not a hands-on manager. That he leaves to his people to whom he's known to give respect and latitude. He doesn't say it, but the production side of things clearly bores him. He needs the tension of the deal, the lure of the next challenge. 'My involvement with oil and fertilizer is counterproductive,' he says. 'Fertilizer is a balance-sheet business. It's a straightforward manufacturing process.'"[3] Unfortunately for the company time was running out--and if they hadn't found feedstock for the plant to refine, it would have soon gone under.

Faced with the task of finding material for the Fort Saskatchewan refinery, and with only five months of stockpile to refine, the Delaney team scoured the globe for feedstock. Russia, Australia, Cuba, London were all visited--but increasingly it became obvious that there was remarkable little orestock on the world market. A sense of impending failure began to make its presence felt as the pressure increased. Yet Delaney relished the opportunity to meet the challenge: "If you're not living on the edge, you're taking up too much room" is the slogan on a T-shirt owned by his son--and it clearly reflects well his own philosophy on life. In this particular case he pushed his management team, and himself, mercilessly. Could the new team deliver the goods? Or would Delaney's initiative slide off the edge? Notwithstanding his financial acumen and solid track record on Bay Street, many observers were not wholly convinced for some time that he would be able to pull it off.

But fortune was to smile on him, and largely because of political turbulence many thousands of miles away. (Ian Delaney would probably take issue with this, claiming that in fact

you make your own luck. And, while much of this is true--and it is necessary to take advantage of serendipity--a little luck along the way doesn't hurt). On one of his many forays to locate feedstock for Fort Saskatchewan, he met up with a group of Cuban officials in 1990, and found them extremely disconcerted about the state of affairs both in their own country and in the Soviet Union. Ian Delaney's curiosity was piqued, and in early 1991, at the beginning of the Gulf War, he set out for Cuba for the first time. After that trip Sherritt Gordon was never to be the same again.

Cuba at that time was in the midst of a desperate national crisis, as its former benefactor and largest trading partner steadily fell apart. Almost 85% of the island's trade had been with the socialist countries of Europe and the Soviet Union (united in the COMECON common market), and for decades its national, state-run economy had been dependent upon a handful of products being produced for that market. Food, spare parts, fuel and technology were all exported by this rapidly disintegrating partnership to Cuba, while Havana sent back sugar and nickel/cobalt feedstock, and to a lesser extent citrus products and tobacco to its COMECON partners. This relationship had worked well for Havana, which was also pleased with the steady subsidies provided by the Soviet Union. In other words, Cuba had become dependent by design upon the Soviet Union. This relationship was fine as long as the steel from Poland, technology from East Germany, spare parts from Hungary and petroleum from the Soviet Union were assured. Yet when these supplies dried up, when the former trading partners no longer could afford to buy Cuba's sugar, and when the generous subsidies--estimated by the C.I.A. at almost $US5 billion per year--suddenly disappeared, Cuba found itself in perilous waters.

In essence Cuba now had immense quantities of sugar to sell--and nobody to buy it.

From the perspective of Sherritt executives, however, the 30% of the world's proven nickel stocks in Cuba that were now lying idle, looked extremely attractive--particularly since the dismemberment of the Soviet Union meant that there was nobody to refine it. In theory at least it looked like a commercial marriage made in heaven--Sherritt had a refinery that was badly in need of feedstock, while Cuba had mountains of ore, but now lacked the ability to refine it. Delaney moved cautiously to secure initial feedstock from Cuba, shipping it north to Halifax, from where it was sent by train more than 3,000 miles to Fort Saskatchewan. Not the shortest or most convenient of routes, clearly, but desperate times demanded desperate measures. And, with the sand in the glass rapidly running out (for both Sherritt and Cuba), there was clearly no time to lose.

The best of human experiences, according to Ian Delaney, is the desire to struggle--while the second best is the feeling of success. And struggle the incoming Sherritt management team certainly did, as it sought to get the refinery up and running. By March of 1991 Fort Saskatchewan began to refine Cuban feedstock. "It was all exciting stuff," Delaney can now say as he reflects on those heady days--but it was not to prove an easy challenge. Transportation was manageable, although costly. The refinery could handle the feedstock, but because of the different proportions of nickel and cobalt in the mix, it was necessary to make a number of fundamental (and costly) adjustments at the refinery. One major challenge, however, was how to marry the hard-nosed capitalist Sherritt approach to doing business, where the major concern was the financial bottom line, with the rather lackadaisical approach of the Cuban workforce, schooled in a rigid top-down workstyle and the inefficient work habits of socialist Cuba. It was not going to be easy. Yet the most difficult problem was that Sherritt soon found itself caught in

the grip of international politics. For, while one immediate problem had been solved by the acquisition of the Cuban ore, another was just beginning for Sherritt because of the long U.S. enmity towards Cuba, and any who dealt with Havana. Washington had broken relations with the revolutionary government in January 1961 and had placed an embargo on Cuba, making it legally impossible to trade with that country. It was therefore legally impossible for any company, anywhere in the world, to sell in the United States any product originating in Cuba. The problem for the company was that the United States made up some 90% of Sherritt's market--so clearly this was not going to be easy. The Cold War (which had disappeared everywhere apart from the Washington-Havana axis) thus offered another major headache to the new Sherritt management--just when they thought that they could heave a sigh of relief. "Pink" nickel--the result of blending capitalist (white) and communist (red) sources--simply could not be sold in the United States, which to this day maintains a badly outdated "Trading with the Enemy" Act against Cuba. Yet another challenge for the new management team to overcome.

In many ways that Sherritt was dealing with the Cubans at all was a strange development, given the fact that the company had lost between $27 and $54 million in royalty payments (estimates vary as to the precise amount) owed to the company by the revolutionary government. Back in the 1950s Sherritt had supplied its metallurgical technology to help design and commission the Moa Bay nickel facility--and in payment was to receive a royalty of between $1 and $2 million per year for the life of the mine. Yet the assets had been seized by the revolutionary government, with royalties to Sherritt ceasing soon afterwards. Claims were of course filed, but in the end an understanding had been reached between the Canadian and Cuban governments concerning all outstanding claims of Canadian companies, and eventually these

were dropped. But now, some four decades later--and with both partners staring disaster in the face--it was decided to strike a landmark deal. Old scores were thus soon forgotten, and both sides took full advantage of the new trade opportunities.

Summing up the period from 1990 to 1993, Ian Delaney noted to the author in a September 1998 interview "There wasn't a second during that period when my heart wasn't in my mouth." The secret of the strategy which he pursued during that time was for the company to be seen to be in business--"any business," he noted drily. Sherritt had to appear to be active, and to project a sense of confidence that in reality was rather superficial. If at any time the refinery had been closed, then it would have been abundantly clear that the company had finally died--while conversely the appearance of refining activity was badly needed to bolster investor confidence. And if the refinery had indeed closed its doors, then neither the shareholders nor the banks would likely have provided the new management with any further funding. The name of the commercial game thus became the generation of economic activity--of any kind--as Sherritt continued to tread commercial water with some major worries lurking in the background. At the same time the Delaney team was clearly searching for long-term opportunities--if only the refinery could stay afloat during this process. As a result of careful management, and largely due to the Cuban feedstock, Sherritt was able to juggle its fertilizer, oil and gas, and technology interests during this difficult restructuring period. Eventually things did come together--and Delaney was able to pull it off. At this point the hard-nosed capitalist, sensing a number of opportunities just starting to open up in socialist Cuba, decided to expand Sherritt's stake significantly there. This was an extremely risky move for a number of reasons, not the least of which were consistent U.S. opposition and a profound distrust of foreign investment held by the

revolutionary government. Yet Delaney was convinced that these major obstacles constituted a terrific challenge, and great opportunities, for the company. The rest, as they say, was history.

1990-1994: Shoring up the Loose Pieces

From 1990 to 1994 Sherritt Gordon was kept alive not by refined nickel (the traditional staple product of the firm), but rather by a combination of oil and gas, and fertilizer, returns. (In 1994, the last complete year before Sherritt separated its Cuba holdings into Sherritt International, revenue for fertilizers was $518,235,000, compared with $322,896,000 for its metals division). It was clearly a period of transition for all, as the company sought to stabilize its precarious financial base and maintain its markets--while the Delaney team gradually sought to put its own stamp on the company's new direction. Put in stark terms, at that time there weren't many options--and there was even less time to juggle those (limited) possibilities.

The worst year for the company was clearly 1990, when revenues in the Sherritt metals division plummetted to $174.46 million (from $364.9 million the previous year), and operating profit fell dramatically by 88% to $5.4 million.[4] Coming after profits of $45.5 million the previous year, it understandably unsettled shareholders. Nevertheless it was obvious that much of this was due to the shutdown at the refinery that summer (production was only 71% of capacity there), and that problem appeared to have been allayed--at least temporarily--with the arrival of Cuban feedstock. By 1991 the initial steps had been taken to put things back in order, and at the Annual Shareholders' Meeting--held for the first time in the company's history at the Fort Saskatchewan plant--President Bruce Walter announced a far more encouraging outlook for the company: net earnings for the first quarter of 1991 were $720,000 (compared with a loss of

$32.4 million in 1990).[5] His colleague, CEO Delaney, summarized bluntly Sherritt's survival strategy a that time: "Priorities were dictated to us for the first year. We had to secure a nickel feed source. The Metals Plant was not running at capacity. We did something that shocked the Metals community. When many thought that it could not be done, we looked some place entirely different and secured a new significant long term feed supplier."[6]

A major element in the restructuring strategy of Sherritt by Ian Delaney has been the timely purchase of undervalued companies at a point when their acquisition represented a useful addition for Sherritt. This occurred with the massive Redwater fertilizer plant from Imperial Oil in 1994, and most recently with the purchase of Luscar Coal in 2001. (In fact, the purchase of Sherritt itself also fits perfectly into this pattern). However, the first of these important acquisitions for Sherritt was in the oil and gas business. In October of 1991 Sherritt purchased Canada Northwest Energy Limited (CNW), and a new company--Sherritt Oil and Gas--was subsequently established in late 1991. This purchase allowed Sherritt to combine its own, previously held gas properties (used mainly in the refinery and fertilizer plants) with the CNW holdings, and extensive international experience. Production of natural gas almost doubled in the first year afterwards (49 million cubic feet per day in 1992, compared with 25 million in 1991). Oil production also increased substantially as a result of this merger (from 1,660 barrels per day in 1991 to 7,582 in 1992) from sources previously run by CNW in Canada, Spain, and Italy. (Soon oil from Cuba would increase that even more--as Sherritt quickly became the principal oil producer there). The financial bottom line also improved: operating earnings increased by $13.9 million in 1992 to reach $16.3 million, while revenue in the oil and gas holdings also jumped significantly--from $19.1 million in 1991 to $65.5 million in 1992.[7] The acquisition of CNW in

one fell swoop allowed Sherritt to generate badly-needed finances, convince wary financial observers that the Delaney team was turning things around, and prepare the way for an expansion of the company in Cuba, an area that the CEO was becoming increasingly convinced would be of major strategic importance for Sherritt interests.

One of the unexpected advantages of the importation of Cuban feedstock was the valuable by-product cobalt which resulted from the processing. (To put this in context, prices for nickel in 1992 averaged $US3.18 per pound, and for cobalt $US23.01). The company had been obliged, however, to introduce new technology in the cobalt separation and reduction plants at Fort Saskatchewan--and there had been start-up problems in these new areas of production. The end result was a loss of $3.3 million in the Metals division in 1992, to which the continuing drop in nickel prices--from $US6.04 per pound in 1989 to just $3.18 in 1992--also contributed. Just when the new management seemed about to make progress, it appeared that there was a new problem waiting to confront them. The idea of getting the company up and running during this difficult three-year period was clearly not going to be as easy as Ian Delaney had hoped.

In 1992 Sherritt Gordon was involved in four principal business groupings--fertilizers, oil and gas, metals, and special materials technology. The traditional basis had of course been its metals business. Yet, as noted above, things were still not going well in that area. For, while it had produced limited (and disappointing) earnings of $1.7 million in 1991, 1992 had been even worse--with an operating loss of $3.3 million. The company's literature tried to put a brave face on things, noting that delays in the start-up of the new cobalt-processing system (as well as the continuing problem of insufficient feed supplies) were responsible. It was eminently clear, however, that Delaney's forays into Cuba had only resulted in stop-gap measures--a steadier

supply of feedstock was required if the refinery was to live up to its potential. An increase in the world price of nickel was also highly desirable.

Yet if the traditional support of the company was suffering, the same could not be said for the other areas. Oil and gas earnings rose to $16.3 million, as did income from fertilizer ($14.8 million). The technology section had seen its income drop slightly, yet still produced operating earnings of $7.8 million. For Delaney, however, the core industry of the company was the refining process--and the one with the greatest potential for income generation. Still badly needed was a larger, more secure, supply of feedstock--and on paper at least the Cuban connection seemed the most viable. The Cubans had lived up to their side of the bargain so far, shipments from Moa had brought the Fort Saskatchewan plant back to full production, and the financial picture was steadily improving. If only it weren't for U.S. policy towards Cuba that kept getting in the way. Delaney pondered the dilemma of strengthening commercial ties with the Cubans, fully aware that this was a two-edged sword.

Throughout 1993 and 1994 the company's fortunes continued to improve--particularly because of the booming fertilizer division. The management had decided that the time was right to expand fertilizer production, and so bought the huge Redwater fertilizer plant not too far away from Fort Saskatchewan in March of 1994. The impact of this acquisition was immediate--and that year Sherritt Fertilizers income skyrocketed over corresponding figures for 1993, with divisional earnings of $137.4 million on $518.2 million of revenue (compared with $9.9 million on net revenue of $159.6 million). Sales increased from 912,000 tonnes to 2,623,000 between 1993 and 1994, and in all the fertilizer division contributed an astonishing 56% of the company's total revenue for the year. The mining company-turned-refinery now found itself the largest

producer of nitrogen and phosphate fertilizers in Canada, and indeed one of the largest nitrogen producers in North America.

Ian Delaney appeared to have pulled off yet another coup, buying Imperial Oil's massive plant for a bargain basement price of $408 million at a time when the price cycle of fertilizer had dropped significantly. Building a similar plant would have easily cost double or triple the purchase price, as Delaney knew well. And with the abrupt rise of fertilizer price soon afterwards, the company's fortunes began rising swiftly. He has summed up his strategy with some clarity: "The trick is to expand contra-cyclically ... Every cent of my net worth has been earned in the ditch [the bottom of the business cycle]. If we hadn't placed our bets in the past one or two years, we'd have to spend billions to expand the fertilizer business."[8] Once again his timing had been impeccable, and the company--following the old maxim about buying cheap and selling dear--had done just that. In fact, just two years later the fertilizer giant Agrium Inc. of Calgary paid roughly three times that amount for the mainstream Sherritt fertilizer operation (then part of a renamed company, Viridian) after Ian Delaney started to spin off companies from Sherritt. Through this one major transaction the company coffers were filled, shareholders were rewarded handsomely, faith in Sherritt was restored, and Delaney was able to stock up his war chest for his further ambitious forays into Cuba. In financial terms it had been a masterful purchase, and if there had been any remaining doubts as to Delaney's financial acumen they were quickly put to rest.

It had taken several years for the company to be once again back upon a firm financial footing--but it had finally happened. There were still major decisions to be made, however, and the period 1994-95 was one of major reflection and analysis in the company. The fertilizer part

of the business continued to thrive, with 65% of its sales in Western Canada, and 25% in the Pacific Northwest of the United States. But what was to be done about the Metals division, an area where Delaney was convinced the long-term future of the company lay? (Several old-timers in the Sherritt management claim that the CEO was never really a "fertilizer man," greatly preferring the metals side of the business--whose cycles he understood far better).

It had become increasingly evident to Delaney that in the long run the only viable option for obtaining large enough quantities of feedstock for the refinery lay in Cuba. Just as obvious was the fact that any refined products from this source would be severely restricted since the US. market--the traditional market for Sherritt--was strictly off limits. Ian Delaney therefore decided that the time had come for an even greater challenge--the radical restructuring of Sherritt into a number of smaller companies. In 1995 the company finally separated out its investments in Cuba from the rest of its goods and services. The rest initially fell under the auspices of the new company name adopted by Sherritt management, Viridian Inc. (The "Viridian" name, accompanied by green symbols, was supposed to represent the fact that fertilizer was now the predominant business activity of the company. A public relations campaign then ensued, trying to show that a change of name could be beneficial for all. Large posters were widely distributed, and billboards set up. One shows a larger than life portrait of Marilyn Monroe, under which it is noted "Formerly Norma Jean Mortenson." The other half of the billboard has the name "Viridian" occupying the same size of space as the portrait of the actress, noting underneath "Formerly Sherritt Inc." The none-too-subtle message was that, under the new name, a "bigger and better" company would emerge).

The basic reason for this new strategy was obviously the company's developing role in

Cuba--and what that implied closer to home. Sherritt had become increasingly involved in Cuba after the initial nickel and cobalt sulphide feedstock arrived at Fort Saskatchewan in 1991. Since 1992 the company's expertise in oil and gas--particularly strong since the acquisition of CNW--had also been steadily growing in Cuba, where Ian Delaney saw tremendous potential, both for exploration of new fields and for obtaining better yields on existing fields. (A decade later this role is even more significant, and Sherritt is now the largest investor and producer in the oil and gas business in that country, and of course in the nickel/cobalt business). Finally the major breakthrough had come in 1994 with the establishment of a vertically integrated Metals Enterprise between Sherritt and the Cuban government, owned in equal shares by Sherritt International and General Nickel Company S.A., and with the objective of mining, processing, refining, and marketing nickel and cobalt. Clearly Ian Delaney was taking the company into unchartered waters, where there was tremendous business potential--as well as great danger among the many unmarked shoals and reefs of international politics.

One of these dangers of course was steadfast U.S. opposition to revolutionary Cuba. With Sherritt increasingly becoming involved with the Cuban government, it was obvious to all that this could only lead to severe problems for the company in its existing format. A radical restructuring was thus necessary. Fortunately this occurred at a propitious moment, since there is nothing like initiating a bold strategy at a time of prosperity. In 1995 Sherritt Inc. reported its highest net earnings in the company's history, thereby preparing the way for a significant redirection of the company's fate. The fertilizer division did particularly well with earnings of $300.7 millions, an increase of 126% over 1994 earnings. Delaney decided that the time was right to make his next major move, the division of Sherritt into two distinctive companies.

This dramatic development in 1995 was understandably difficult and in many ways profoundly unsettling, obliging employees (hundreds of whom had worked for many years under the "Sherritt" moniker) to decide which of the two resulting operations they wanted to join--Sherritt Inc. (soon to become, at least for a short time, Viridian), or Sherritt International. The former focused mainly on the fertilizer side of the business, and concentrated on the North American market, while Sherritt International dealt largely with mining/refining and subsequently other smaller business ventures in Cuba. (Sherritt International also kept the name of Sherritt since it continued to develop the traditional mining and refining side of the company). In April 1966 Sherritt Inc. changed its name officially to "Viridian." Its central goal was the production of fertilizer, although it also retained Canadian oil and gas assets, as well as the advanced industrial materials and technology business of Westaim. Shortly afterwards the plot thickened even further, when all of the fertilizer components of Viridian were acquired by fertilizer giant Agrium in December 1996 , and the other (non-fertilizer) interests of the company, mainly involved in research and development, were spun off to form a number of companies--principally Westaim, UMEX, and Dynatec, as was outlined more thoroughly in Chapter 4.

Within a year, then, there had been a major division into two distinctive corporate groups. This was traumatic enough. But then to have Sherritt Inc. renamed, its focus shifted, and then its core production interests merge with another company (with other research interests spun off) was extremely stressful for the organization. At the plant in Fort Saskatchewan lines of demarcation were set up to ensure that Cuba-related material and resources in no way mixed with facilities producing for the U.S. market. Fences were constructed, areas were painted blue for

Sherritt and green for Viridian, and different utilities were hooked up for each company, all to enure that "Sherritt International" and "Sherritt Inc." interests were totally separated. In the Toronto office staff now had two sets of telephone lines, and were constantly dealing with members of the public thoroughly concerned as to what it all meant. Confusion in fact reigned for some time--and proved a negative influence on staff morale--as company employees had to decide which company they now chose to join.

In November 1995 Sherritt International was created, its central goal being to focus upon investment opportunities in Cuba. Ian Delaney threw his hat into this ring, convinced about the tremendous potential that he could see in Cuba for the company, and keen to turn Sherritt International into what he termed the "Canadian Pacific of Cuba." While for many people this exotic locale at the time seemed extremely distant, he laughed at the critics. From his office in Toronto, the Fort Saskatchewan plant was some 4.5 hours (and two time zones) away, whereas Havana was just 3 hours away--and in the same time zone. In an address to the Canadian Club on February 24, 1997, he made reference to this fact, while also making a tongue-in-cheek reference to the impact of the Helms-Burton legislation passed in the United States which had banned him and several other management personnel from travelling to the United States: "In fact, going to Havana is no more difficult than going to Montreal. We used to say 'going to Montreal or New York,' but now I just say 'Montreal.'"[9]

The company was now in extremely sound shape. It had touched bottom in its restructuring, and its financial star was readily rising. It had already raised substantial financial support, based upon its improved record. In April of 1993, for example, it had issued also $US200 million of long-term notes. Then in February of 1994, it completed an offering of

18,500,000 common shares (for $11 per share), with the proceeds going to the company's working capital. Following the acquisition of the new Redwater fertilizer holdings, long-term notes to the value of $135 million, as well as $US100 million in debentures, were also issued. Clearly there was great public interest in Ian Delaney's latest campaign. Just as obvious was the fact that the new management was using its considerable financial acumen and experience to generate funding and get the company fully productive. Early signs for this could be noticed by 1993. Working capital had more than doubled (to $150.39 million), net bank indebtedness had dropped to $6.18 million (compared with $44.42 million in 1992), while fertilizer, oil, nickel and cobalt production had all increased. The recovery continued in 1994, with Delaney boasting that in that year Sherritt had "greater revenues, greater output, greater productivity, and greater profits than any other year in our 67 year history."[10] Many traditionalists were appalled at the rapid-fire transformation of the Sherritt family of diverse interests of which they had been a part for years. Others quickly adapted to the new scheme of things, recognizing that sentiment had little role to play in business--particularly when the previous model had been on the verge of collapse.

The Sherritt Experiment in Cuba

The division of the company into two distinctive entities constituted a major challenge for the company--indeed for many employees it was (and remains) a traumatic event. In just five years the Sherritt corporation had probably changed more than in the previous forty. But nothing could have prepared Sherritt shareholders (or for that matter Cuban President Fidel Castro) for the deal which Ian Delaney now sought to propose to the Cubans. For, if Cuba had such large supplies of nickel ore that were being under-utilized, and if the future of Sherritt hinged upon

greater supplies of the same feed, Delaney mused, why not make the Cubans an offer that they couldn't refuse?

The Sherritt team had done their homework. They knew that the plant at Moa from which they had been receiving their feedstock was operating at only about half its capacity. The plant had been designed to produce 24,000 tonnes of mixed sulphides, but its best ever production level had been 19,500 tonnes in 1989. This had then dropped to 12,549 tonnes in 1994, but under Sherritt management rose to an astonishing 26,034 tonnes just two years later. (To date the record production rate is 29,520 tonnes of nickel and cobalt contained in mixed sulphides, which was achieved in 2000). Moreover it was clear that its technology was badly outdated, and the plant was poorly run. And, with the Soviet Union now completely broken up, it was badly in need of an alternative arrangement to have its feedstock refined. Delaney decided to make his move--resulting in the company making another wide (and unpredictable) swing into unchartered territory. The end result was that the traditional, staid mining company (which had already faced up to a number of tough challenges in the previous years, and had evolved into a vastly distinctive corporation during the Delaney tenure), was about to stake its commercial future upon events in Fidel Castro's Cuba. It was not a time for the faint-hearted.

On paper it all seemed reasonably straightforward: the lynchpin for much of Sherritt's work was the Fort Saskatchewan refinery, which badly needed feedstock in order to survive. But there were soon other levels of interconnectedness--mainly through oil and gas interests. CNW had been purchased initially to supply some 60% of the plant's annual consumption of oil and gas. Soon, however, it had become a key component of Sherritt's work in Cuba, both in exploration work and in employing Canadian technology to obtain a better yield from existing oil

wells. And the more time that Ian Delaney spent examining the state of Cuba, a society in the throes of a dramatic transition, the more he realized that there were several other extremely promising business opportunities for the company in areas in which Sherritt had not been traditionally involved. Clearly, he wanted Sherritt to have a piece of that action.

The core interest of Sherritt International remained the nickel and cobalt mining/refining. Since 1991 Cuban feedstock had been arriving at the Fort, and both the Cubans--desperate to fill the void left following the pull-out of the Soviet Union--and Sherritt were pleased with the arrangement. But Delaney wanted more. "It was apparent that neither side could really maximize the relationship," he noted in a 1999 interview with the author. "We needed to develop it over a far longer time, and have more commitment from both sides." The straightforward purchase of Cuban feedstock was fine, but why not invest in Cuba? This was not as strange a proposal as it first appeared. Cuba had changed dramatically since mid-1993. The possession of hard currency was legalized in the summer of that year (Prior to that it had been illegal for Cubans to hold dollars). The government also indicated some 120 trades where Cubans could work for themselves, and charge whatever the market would bear--and soon some 220,000 Cubans were doing just that. Most state-owned farms (notably inefficient) were turned over to autonomous co-operatives. Farmers' markets were now allowed, and farmers encouraged to truck their surplus produce into town and sell it for whatever price they could. Joint ventures with foreign capital were also permitted, and investors from around the globe--with the exception of the United States--flocked to Cuba. (To put this in context, in 1990 there were economic associations with 7 foreign investors in Cuba, worth $US100 million in investments. By the end of 1995, there were a staggering 212 agreements--with investors from

40 countries--whose investment amounted to $US2.1 billion).[11]

These major concessions by the socialist government of Fidel Castro had been made in essence because Cuba had no alternative if the revolution were to survive. As in the case of Ian Delaney's restructuring of Sherritt's various interests into several very distinctive bodies, Fidel Castro was faced with decisions which years earlier would have been unthinkable--and which have had an extremely traumatic impact upon his country. At that time the revolution appeared to be in tatters, and Washington pursued a stepped-up campaign to finish off the process. With the Soviet Union destroyed, and Cuba reeling in economic disarray, the official U.S. government thinking was that it was now time to pressure Cuba. Moreover the defeat of the Sandinista government in Nicaragua, and the arrest of President Manuel Noriega in Panama by invading U.S. forces, had badly undercut Fidel Castro's regional support. Meanwhile Cuba was in terrible shape. Severe blackouts throughout the country (the result of massive cutbacks in fuel), a severe increase in unemployment, a drastic reduction in trade, and major cuts in the ragged social security net in Cuba, all meant that the revolution was on the ropes. The period 1993-95 was by far the worst in 35 years of the revolutionary process, with some 50,000 Cubans going blind (thankfully only temporarily) because of a vitamin deficiency, and the average Cuban male losing 20 lbs. in weight because of a severely reduced food supply. As a result of this collective pressure, Washington was confident that a popular outcry against this depressing state of affairs would inevitably occur, and that the Castro government would be unable to survive. As a result legislation was introduced to cut off the economic lifeline that foreign investment represented--the Helms-Burton legislation of 1996.

For many Cuba-watchers, the combination of increased U.S. pressure and societal

hardship only spelled doom for the Castro government. After all, they argued, this had been the case for every government in the republics of the former Soviet Union and the former socialist bloc, so why should Cuba be different? Clearly foreign investors were faced with a daunting choice. On the one hand were the tantalizing prospects of potentially great profits, while on the other was the possibility of losing everything as the result of U.S. pressure and an imploding Cuban economy. For many, particularly larger, companies with investments in the United States, it was not the time to enter into an agreement with a socialist regime that, many pundits noted, was tottering on the brink of collapse. And as if the political uncertainty were not enough, there was also the fact that the socialist government had never entered into a major joint venture agreement with a foreign mining company before. Ideologically the Castro government was on a wholly different wavelength from Ian Delaney, whose corporate bottom line was totally alien to their socialist philosophy. The ultimate socialist was about to meet the ultimate capitalist, and neither Sherritt nor Cuba would ever be the same again.

Ian Delaney was undeterred by both the arguments of the financial doomsayers and the potential antagonism of revolutionary hardliners, instead preferring to believe in his own gut instincts that there was an extraordinary opportunity for Sherritt in Cuba in a whole host of ways--starting with a joint venture in the nickel industry. In 1993 he pitched the idea of a large joint venture agreement to visiting Minister of Basic Industries Marcos Portal. The Minister, who could hardly believe his ears, immediately accepted. The concept for that original agreement was simple: Sherritt would put its capital, refining and marketing capacity on the table, while the Cubans would offer their substantial ore reserves, the Pedro Sotto Alba processing plant in Moa Bay (some 800 km. east of Havana), and its skilled, educated (and cheap) labour force in Cuba.

In essence the whole equation of Sherritt's relationship with the Cubans was about to be transformed radically. No longer would one side be contracted to supply raw material, with the other refining the feedstock: now they would be joint venture partners, complete equals in the business, in which their combined efforts would be either rewarded or punished in the marketplace. Their futures would become intricately linked, both politically and commercially--and both sides would come to learn a lot about the other in the following years.

The Sherritt deal was the largest agreement to be constituted with any foreign company. This was to prove a challenge for both sides as they struggled to hammer together a solid working arrangement that was acceptable to a capitalist corporation and a socialist government. "A win-win situation" was how Cuban Minister of Economy and Planning José Luis Rodríguez described to the author the landmark joint venture agreement in 1998. Sherritt passed from being a customer to assuming the role of full partner, while the Cubans found themselves in an unusual situation--50% of their property in Moa (with proven resources for fifty years) was now owned by a Canadian business thousands of miles away, while they were joint owners of a refinery in a remote Albertan town. The first general manager of the new enterprise was Raúl de la Nuez (now Cuban Minister of Foreign Trade), who was based in Fort Saskatchewan, while the director of the plant in Moa was long-time Sheritt manager Werner Bink. There were also six Directors, three from each side, underlining the fact that it was very much a 50-50 enterprise. And how Sherritt's situation had suddenly changed: from being a marginal metals producer in Canada, it had become the joint owner of an extremely rich body or ore, and in fact was now one of the major players in the international nickel world. Most importantly, the problem that had plagued the company for so long--a lack of feedstock--was clearly resolved: the Cubans brought to the

table 60 million tons of nickel-bearing limonite material (with proven reserves of 80%)--enough material to keep the plant operating for at least fifty years.

In commercial terms the agreement made perfect sense, resulting in one of the most efficient (and lowest cost) integrated nickel and cobalt producers in the world. Both sides brought decades of tradition and contacts to the table, and on paper the joint venture augured very well indeed. But what price would Sherritt pay for this agreement? For example, how would it be able to combine such distinctive corporate and cultural approaches? And how would the U.S. government react to show its displeasure at a Canadian company flirting with an enemy of Washington? Perhaps the most important challenge of all was precisely how Sherritt was now going to be able to market its product. Clearly it was not going to be easy.

Ian Delaney was once again the driving force in this initiative, in many ways a useful foil to President Fidel Castro. The two men had first met in January of 1991 when Delaney was on the hunt for feedstock. It was an interesting moment in Havana, increasingly concerned about the impact of the dismemberment of the Soviet Union on Cuban fortunes. Yet things had still not reached the traumatic stage where any of the innovative reforms of the mid-1990s--designed to resuscitate the Cuban economy--had been conceived, much less introduced. A state-controlled, centralized economy was all that most Cuban policy-makers knew, or could visualize for Cuba's future. Delaney entered this environment with a mixture of curiosity and zeal (not to mention a desperate need for feedstock). His initial meetings with Cuban officials caused some consternation among them, since they were at a loss to understand his role in this Canadian refining company with such an illustrious mining history. In the technocratic culture of Cuba, and in meetings with Communist Party functionaries of MINBAS (the Ministry of Basic

Industries), his hosts were at a loss to understand his role in the company. In particular they found it hard to understand why an investment banker, a died-in-the-wool capitalist, was developing contacts with revolutionary Cuba. The man wasn't even an engineer, and clearly was more interested in the financial bottom line than anything else. Delaney was an enigma to them--and even the interpreter at the initial meetings was unable to explain to his Cuban employers exactly what Delaney did, since his role had no direct counterpart in the Cuban political lexicon.

Ian Delaney was invited to meet with Fidel Castro, and has done so on many other occasions since. Despite superficial media coverage that depicts them as sharing a deep personal friendship, Delaney does not accept this. "I wouldn't characterize our relationship as one between friends," he commented to the author. "It's very difficult being friends with one of the most important historical figures of the 20th century." The Canadian expresses respect for Castro: "Like all truly smart people, Fidel wants simple explanations and concepts." Their favourite topic for discussion? Banking, market control mechanisms, and market economies. Clearly it is an unusual relationship between the tough investment banker from Bay Street and the charismatic leader of the Communist Party of Cuba. But there is also a good working relationship, and mutual respect, between the two men. Indeed, as a sign of respect for Castro, when the joint venture was signed, Delaney handed the Cuban president 100 shares in Sherritt International, to be held in trust for the Republic of Cuba.

It is an understatement to claim that Delaney saw tremendous potential in the Cuba of the mid-1990s. In the 1996 Annual Report of Sherritt International he waxed eloquent about both the changes that had occurred in that country in recent years, and the vast potential which investments there offered. Sheritt International at the time had cash of $400 million and assets of

$1.4 billion--and was clearly in a position to assume a major role in Cuba. "The shares of your Company are a proxy for Cuba's economic development and growth," he informed shareholders. Moreover Sherritt was "well positioned to benefit in the years to come from a shift by Cuba towards a mixed economy," he noted. The idea of a "mixed economy" was clearly important to Delaney, who noted the unique situation of Sherritt International: "The prospects of your Company are considerable. It is not often that companies are able to establish such a favourable position to participate in the industrial development of an emerging economy. I believe that Cuba possesses many of the key ingredients to continue its recent growth and to effect a shift towards a mixed economy."[12] For him it was a time for pushing ahead, and rapidly, towards this new investment frontier. There is no doubt that Delaney has succeeded, and in doing so has also had a major impact upon Cuba, for "Cuba's flirtation with capitalism has been, in effect, a flirtation with Sherritt. The company's Cuban investments cover the whole economy."[13]

While Ian Delaney can be criticized for many things, "thinking big," visualizing commercial growth at times of economic downturn, and rooting out unique business opportunities, are definitely not areas where this would apply. Quite the contrary--as his curriculum vitae reveals eloquently. In the case of Cuba Delaney decided early on to go beyond the initial nickel-cobalt joint venture. He referred to this in February of 1997 when outlining Sherritt's goals for Cuba: "The broad investment appeal of Cuba to international investors was such that, if we could create a pan-Cuban investment vehicle, we could grow a very large company. And so in the summer of 1995 I approached the government of Cuba, in order to create a company whose investment intent would be to invest in the fundamental economic building blocks of the Cuban economy."[14] From very early on, then, Delaney was interested in

going beyond the initial joint venture. He was sincerely convinced, as he noted in the same address that Sherritt's investment in Cuba was "a business opportunity for which we believe there is no equal in this world. It is the last high-quality development area in the Northern hemisphere," he concluded with genuine enthusiasm.

Getting to Second Base

The first challenge facing Sherritt International had been to demonstrate the success of the nickel-cobalt joint venture. At face value, and in purely commercial terms, it was an opportunity for both sides to score a noteworthy success. In social terms too the operation was well received--it pumped millions of dollars into the Cuban treasury, while keeping the Fort Saskatchewan plant functioning at capacity. But actually implementing the agreement--what can be referred to as "getting to second base"--was far more difficult than most people imagine.

To a large extent this was because Cuba was simply not ready for what Sherritt was proposing. As a centrally planned, command economy for over three decades, Cuba was not prepared for--and in some government sectors, decidedly not keen on--anything that smacked of capitalism. For too long Cubans had been protected by cradle-to-grave socialism, and the idea of a profit motive as a driving force for any enterprise was clearly not high on the scale of cultural values inculcated by the state. Instead the revolutionary government had emphasized the need for social wealth, shared work, volunteer labour, and moral incentives. The good of the patria, the fatherland, was of paramount importance, while at that time few Community Party functionaries (particularly from the older generation) could identify with the need for increased profit margins. Moreover, for as long as most Cubans could remember, the socialist government

had been there to set quotas, arrange prices, ensure access to schools and hospitals, provide subsidized food, guarantee employment, set quotas, and in general resolve any major difficulties that arose. Personal initiative had always been subordinated to the collective good--and what was now being proposed, after some three decades of revolutionary socialism, was for many Communist Party leaders extremely hard to digest.

There was also a deeply-rooted tradition in Cuban industry of inefficiency without reprisal or consequences--basically because the state would always cover the losses. Individual decision-making was not highly prized either, and instead a custom had steadily evolved over the decades whereby workers traditionally requested approval from above rather than take any risks. (Often the management would then in turn make the request to their own superiors). Sherritt now sought to make their Cuban colleagues appreciate what one Sherritt engineer described to the author as "good international business practices. We had to push decision-making down to area managers, while at the same time accepting responsibility at the top. Prior to that, the reverse of the process had consistently been the case. We also made area superintendents responsible for their own budget process, and for controlling their own operations." Tinkering with mechanical equipment, patching things up--when in many ways obtaining replacement parts or junking obsolete equipment made economic sense--was also commonplace. All of this was of course alien to Canadian businesspeople, and both the lack of entrepreneurial tradition and of taking initiative clearly were a source of frustration to them. Two very different cultures were about to clash head-on. There were, and to a far lesser extent still are, many areas in which Canadian ideas about the market economy have been less than successful. After all, in a 6-7 year period it is difficult to change concepts that have been deeply rooted for two generations. That

said, significant progress has been made, both in productivity levels and in making Cuban personnel more aware of the priorities of capitalist economics. One long-term manager confided that "it was a struggle to get our Cuban counterparts to take their blinkers off. Lateral thinking was not a strength--probably because it had been punished under the old system. Trust has taken a long time to build--but it has come about steadily, and the management at Moa is not as wary of change as it used to be. And in terms of the caliber of the Cuban workforce at the plant, they are truly excellent. I'd take them anywhere in the world to work, and know that they would do an outstanding job."

So how noticeable has Sherritt's role been in Cuba? While Ian Delaney exaggerates somewhat the importance of Sherritt in this cultural switch ("Our fingerprints are all over the way that business is done in Cuba... We work overtime to educate those people"),[15] he is completely correct that Sherritt--one of the three largest foreign investors in Cuba--has set the fundamental standards for incoming capital. Moreover the Sherritt joint venture has led to a radical revamping of legislation in Cuba in a number of fields--from labour law to foreign investment. In sum, the impact of Sherritt has been remarkable in the country.

Having talked with several of the Sherritt negotiating team, it is obvious that they look back on those negotiations between themselves and the General Nickel Company S.A. of Cuba (the joint venture partner indicated by the state) with a mixture of fondness, fascination, and not a little frustration. The most minute details were fought over, concessions were wrought at the last moment, and meetings appeared to go on ad infinitum. Several Canadian participants at those meetings have commented wrily that the Cubans seemed determined to drag them on, partly because of the tenacious Cuban style, but also because they were sailing in unchartered waters--

and hence afraid to make any errors that might affect negatively the national economy, and possibly their own careers. This is not as fanciful as might at first appear, since there had never been an agreement like this in Cuba's history. The size of the investment (it was the largest in the history of the revolutionary government), its complicated nature, and the fact that it was the first joint venture of this kind, all meant that it had to be negotiated stealthily, with extreme caution. One slip codified into law could have a major impact--not only upon the Sherritt deal, but also upon all future joint ventures, as Cuban functionaries were well aware. Of course if some other foreign corporation had already blazed a trail, it would have been far easier--but that pioneering role was left for Sherritt.

In all it took about a year to negotiate the agreement after it had been accepted in principle and Moa Nickel S.A. saw the light of day. The press release from Sherritt on December 2, 1994 understandably put a positive spin on the agreement: reserves in Moa were sufficient for at least 50 years of production; the combination of the two partners created "one of the strongest, most competitive nickel and cobalt producers in the industry"; there was to be a "considerable exchange of expertise between operations in the two countries"; while for Marcos Portal, Minister of Basic Industries, it represented a "landmark commercial venture for Cuba". Ian Delaney was similarly upbeat: for him it was "the evolution of Sherritt's business involvement with Cuba to one of partner from one of customer. The dedication of those involved on both sides of this historic transaction in bringing it to a successful conclusion will now be applied to building the best integrated metals producer in the world."[16]

Delaney knew better than most that this agreement had been extraordinarily difficult for Sherritt--despite the best of intentions of both the company and the Cuban government. In no

small measure this had been the result of radically different business cultures. The actual agreement changed many national laws in Cuba, and provided many Cuban policy-makers with a much-needed introduction to the world of capitalist economics. A tax regime had to be implemented (a novelty in a country where taxes in essence had been dropped thirty years earlier), and a careful definition and pricing of assets had to be provided by both sides. In addition, an analysis of business and profit structures, a joint financial plan, strengthened labour code, environmental study, and plan for the management structure of the new joint venture enterprise, had all to be agreed upon. Progress was therefore painfully slow--"worse than anything I had ever even considered possible," as one Canadian lawyer put it to the author. Inexperience, fear, a lack of preparation, two very different approaches to legal negotiations, and accompanying misunderstanding on both sides hampered the negotiations--and Ian Delaney confesses that on several occasions he was close to pulling the plug on the deal. By December 1994, however, the new company was basically up and running--and the Cuban investment scene had changed dramatically.

Sherritt Oil and Gas

While the basis for an agreement between Sherritt and Cuba was the need to harness and refine the rich nickel-bearing feedstock in Moa, it soon became apparent that there were several other areas in which the interests of both parties overlapped. One important feature which soon became particularly useful for the Cubans was in the area of oil and gas. The October 1991 acquisition of Canada Northwest Energy Limited, an Alberta company that for many years had been engaged in the exploration and production of oil and gas, was quickly involved in Sherritt's

campaign in Cuba.[17] Until this time the focus of CNW's natural gas activity had been in western Canada, with oil exploration and development being carried out in several countries. The company had originally been purchased by Sherritt for domestic reasons, given the need for large amounts of natural gas to produce nitrogen fertilizers (The natural gas represented some 53% of the cost of ammonia and urea production used in the fertilizer process). CNW was producing some 25 million cubic feet of gas per day--meeting over one-third of the Fort Saskatchewan refinery's requirements--and this was supposed to increase to 55 million cubic feet per day in 1992. And so, while CNW had been bought as a hedge against high natural gas prices, it soon passed to becoming an extremely important component of the Sherritt strategy in Cuba. Indeed several of its executives were soon running the Sherritt operations in Cuba (Frederic Wellhauser became President and Chief Executive Officer of Sherritt International), while Sam Ingram is Senior Vice-President and general counsel.[18]

The origins of CNW's work in Cuba are unusual. Ian Delaney had already made several exploratory trips to Havana seeking mixed sulphides feedstock for Fort Saskatchewan. On one of these trips he engaged in discussions with Cuban officials about their many problems following the demise of the Soviet Union. The theme of energy needs recurred in these conversations. Ever vigilant for promising transactions, Delaney proposed sending a CNW delegation to analyze the situation and, if possible, see if their expertise could be of assistance. Between December 1991 and February 1992 some feverish activity took place--until it became very obvious that CNW personnel (now working for Sherritt Oil and Gas) could in fact prove enormously helpful to the Cubans, and at the same time turn in handsome profit for Sherritt. Their work paid off, and soon Canadian technology was being used on existing deposits to obtain

vastly increased yields of oil.

Ever since its acquisition by Sherritt, CNW had been a key player in the company, which folded it into its own small energy unit, renaming the combined group Sherritt Oil and Gas. Oil and gas operating earnings for the combined unit increased from $2.4 million (1991) to $16.3 million (1992). This trend has continued ever since, with the most recent figures showing that operating earnings in 2000 reached a high of $79.5 million (roughly double the 1999 figures, and the fourth year in a row that new oil production records had been set). The new company first opened its offices in Havana in March of 1992, one of the first foreign investors working in the energy field. It was soon involved in three major projects--improving the productivity from existing wells, evaluating oil discoveries for the Cuban government, and exploring for oil itself.

The first of these projects--known in the trade as the Enhanced Recovery Programme--has been particularly important for Cuba, which until the early 1990s had been totally dependent upon the Soviet Union for subsidized oil. Cuba then found itself with no fuel from its former ally, and little money to purchase supplies on the world market. Sherritt's initial role was to employ modern Canadian technology on existing wells in the Varadero, Boca de Jaruco and Piña fields, replacing outdated Soviet technology, and improving the yield from the established wells. By the end of 1992 the company had performed work on 16 existing wells--and by early 1993 some 24 wells had obtained production rates greater than 2,800 barrels of oil per day. This progress continued, and by late 1994 a further 7,000 barrels of oil per day were being produced in Cuba, largely because of Sherritt's involvement. (This amount represented fully 27% of the entire national production).

It is difficult to overestimate the importance of Sherritt Oil and Gas in Cuba. Oil

production by the company has been steadily increasing: 9,268 barrels per day (1996) to 9,524 (1997), 15,656 (1998), 23,590 (1999) and an impressive 30,356 (2000)--production records for four consecutive years. (Total Cuban oil output for 2,000 was just over 60,000 barrels per day--an increase of more than four times what it produced a decade ago. In other words Sherritt produced approximately 50% of Cuba's total oil for 2000). By the summer of 2000 the company had produced over 30 million barrels of oil in Cuba since it opened its office in 1992, an astonishing amount. Oil and gas might have been seen initially as a relatively minor operation in Cuba (compared to the nickel/cobalt business), but it is now clearly extraordinarily important--both for the company and for Cuba.

Indeed, by the new millennium Sherritt Oil and Gas was in many ways as significant to the Cuban economy as the vital joint venture in Moa. The omnipresent blackouts in Havana during the difficult 1990s have now gone, in no small measure because of the increased oil production. Cuba, then, is well on the way to oil self-sufficiency, due to the enhanced recovery programme and aggressive exploration efforts. And the company is also gaining in experience and data for future exploratory work, and also in financial terms. Revenues for Sherritt in 2000 from oil and gas were $165.2 million--due largely to record production rates and high world prices--a noteworthy increase of 55% on 1999.

Sherritt, Cuba and the Realities of International Politics

Sherritt International seemed tailor-made for the Delaney style. It has a reputation for imagination, innovation, and the ability to think on its feet. There is also an irreverent, slightly pugnacious flavour to its organization, as can be seen in the decision to hold the September 1996

Board meeting--the first of the new corporation--not in Toronto, but in Havana itself. (Significantly it was the first capitalist company to do so in almost four decades--and the decision was not appreciated in Washington). But it fit in perfectly with the new approach of the Delaney management, who increasingly saw Cuba as the best investment opportunity in the world. Moreover, while Ian Delaney not only repeated this mantra to all who would listen to him, he also practiced it. As a result, Sherritt steadily began to diversify its interests, first with oil and gas, but then with investments in market gardening, tourism, power generation, communications, and most recently food processing. Clearly this was a major development after decades of refining nickel in Fort Saskatchewan.

But while Sherritt's image was increasingly projected around the world (Ian Delaney himself being typecast by several media outlets as "Castro's favourite capitalist"), this was a development which was abhorred in Washington. U.S. policy at the time was based upon the premise that, were it not for the emergency measures introduced by Havana in the mid-1990s, the Castro government would have already fallen. Anything that was seen as propping up the revolutionary government was therefore unacceptable. In particular this decades-old frustration with the Castro government came to be centred upon foreign investment in Cuba--the lifeline of the regime, according to policymakers in Washington. And since Sherritt was the largest foreign investor at the time, understandably it was soon caught up in a maelstrom of emotions. As one observer put it with great clarity: "Sherritt International Corp., the poster child of Cuba's new romance with international capitalism, has charged onto the communist Caribbean island with an abandon that has made the Canadian company handsome profits and powerful enemies."[19]

The same article cited vocal opponent of Fidel Castro, Cuban-American Congressman

Lincoln Díaz Balart, who noted that "Delaney has very willingly accepted his role as the most identified business figure in collaboration with the Castro dictatorship," and referred to Sherritt despectively as "playing foreman on Castro's plantation."[20] As Canadian investment on the island grew, and as Ottawa increasingly rejected Washington's attempt to isolate Cuba in favour of a policy of constructive engagement, U.S. criticism also increased--both of the Canadian government approach and of investors. There were a number of criticisms levelled at Canadians: Ottawa was accused of "appeasement" with the Castro government (which was likened to the manner in which British parliamentarian Neville Chamberlain sought a rapprochement with Adolf Hitler), both government and investors were criticized for their ignorance about human rights abuses in Cuba, Canadian tourists were accused by the office of Senator Jesse Helms of going to Cuba only for sex and were therefore responsible for an increase in prostitution, and investors were called immoral for investing in a country with a slave labour force. This latter criticism was directed specifically at foreign investors--and Delaney, clearly annoyed, responded with vigour: "What about the morality of investment in Cuba? Our company, which operates in most continents on this planet, only does one type of business. We operate at the highest levels of business conduct--ethically, economically, and personally. Period. We do not make compromises. I will not entertain for one second an attack on the motives of our company, its officers or directors. We have the moral high ground here."[21] Clearly the increasing Sherritt investment would prove controversial in conservative (and powerful) U.S. circles--and continues to be so.

Senator Helms and his spokesman Marc Thiessen, however, lost few opportunities to attack Sherritt's role in Cuba. Together with Congressman Dan Burton, Senator Helms (North

Carolina) sponsored the "Cuban Liberty and Democratic Solidarity (Libertad) Act of 1996, better known as the Helms-Burton law. The objective was to stop all foreign investment in Cuba, and was focused on those companies who were "trafficking"in property that had been expropriated from U.S. citizens by the Cuban state. Given the fact that much of the plant with which Sherritt was now associated in Moa had once belonged to New Orleans-based Freeport-McMoRan and--more important--that Sherritt was now the principal investor in Cuba, Washington made the company a priority target. Thiessen explained in melodramatic fashion the dangers facing would-be investors in Cuba: "Sherritt is radioactive ... You don't want to get too close to it because you may get sick. Anybody who is considering financing the new Sherritt venture in Cuba ought to read the Helms-Burton very, very carefully."[22] In particular Title IV of the act, "Exclusion of Certain Aliens," was soon invoked, and Delaney and ten other Sherritt executives--along with their spouses and children--were officially banned from U.S. territory. The reaction from Sherritt was understandable: "On a personal level as a Canadian, this is offensive,"[23] reacted Patrice Merrin Best upon learning that she had a grace period of 45 days to sever ties with her company and notify the State Department in writing of that fact--or else be banned (along with her husband and children) from entering the United States.[24] This letter to her and three other vice-presidents followed a similar letter to other executives in July of 1996. "At this point I doubt that we [and the U.S. State Department] will become pen pals," she quipped.

Right-wing groups in the United States lost little opportunity to threaten Sherritt. Title III of the Helms-Burton law allowed the former U.S. owners (most of whom had been Cuban citizens at the time of the expropriation and therefore, it is generally agreed in terms of international law, ineligible to proceed as Americans) to sue the current "traffickers." In the bill

the potential for significant punitive damages was carefully detailed. Throughout the Clinton years this legislation was suspended on a six-monthly basis, largely because of the president's concern about international condemnation of the law (It is widely seen as being fraught with legal inconsistencies), and not a single country publicly supported Washington's unilateral approach. But perhaps the real goal of the law had always been to make sufficient noise to scare off potential investors in Cuba, and in this it did have some success--particularly among large multinational investors, wary of legal problems in their U.S. subsidiaries.

The Cuban American National Foundation (CANF), a conservative exile lobby group, also ferociously attacked the investment, and placed Ian Delaney on its "most wanted" list. Threats were issued, and understandably security at the Toronto office was increased. The CANF spokesman in Washington, José Cárdenas, accused Ian Delaney of being "nothing more than a lackey for Castro's communist regime", and warned people against investing in Sherritt: "I can only point out that they are making a wager... They are betting on a horse named Fidel Castro and if that horse doesn't win, and we don't think that it is going to win, they are going to lose big."[25] The fact that the international community unanimously had condemned the extraterritorial aspects of the Helms-Burton law, and that throughout his presidency Bill Clinton had suspended Title III every six months (thereby preventing claimants from using the U.S. court system to sue foreign companies) obviously provided moral support for Sherritt. The Canadian government also brought in antidote legislation in order to protect Canadian investors in Cuba, and to reject the extraterritorial nature of Helms-Burton. Nevertheless it was clear that Washington was displeased with this particular Canadian company, and U.S. politicians lost no opportunity to lambast Sherritt's increasingly high profile in Cuba.

It is worth noting that the company retaliated with grace and wit. In an unusual gesture, and as a means of deliberately poking fun at U.S. policy towards Cuba, in 1999 Sherritt International published a book of cartoons, Considering Cuba: A Collection of Political Cartoons about Cuba, that gathered a number of published cartoons and poured scorn on the seriously flawed U.S. policy toward Cuba. In all there were some sixty cartoons, two of which dealt specifically with Sherritt's role. One, from the Financial Post of May 14, 1996, showed an "Uncle Sam" caricature brandishing a "Cuba Black List," and jabbing a finger at a Sherritt International executive, while the slogan underneath screamed "I Don't Want You." The other, from the May 28, 1997 issue of the same publication, showed a shareholder of Sherritt International--identified by a large badge with the company's name prominently displayed--smoking a fat cigar that had "Cuba T-Bills" written on it.

Delaney's investment in Cuba was obviously a calculated gamble, since he knew well that Washington would continue inexorably to hound would-be investors in Cuba, while maintaining its decades-long pressure upon the revolutionary government. Clearly anything that was interpreted as supporting revolutionary Cuba--including mid-sized Canadian mining/refining companies--would not be allowed to stand in the way. At the same time the CEO was aware of the tremendous business opportunities in Cuba, and was keen to position Sherritt International right in the middle of any possible developments. Some Sherritt executives were at first less than sanguine about the impact of U.S. policy singling out the company--and the fear of losing clients was a major concern. Ironically this occurred just as production at Moa doubled--which meant of course that other clients had to be found not only for normal production rates but also for the significantly increased supplies of nickel and cobalt. Fortunately the passing of Helms-Burton

had remarkably little impact on Sherritt International clients. Some U.S. companies obviously had to stop buying material from Sherritt--but they were soon replaced by many new clients, mainly in Europe and Asia.

Several observers have noted Ian Delaney's positive references to the role of Canadian Pacific, the company which started with the railroads and went on to a variety of commercial activities in Canada, and have commented upon his desire for Sherritt to play a similar role in Cuba, supporting the nation-building role there that he saw as being desirable. In the case of Canadian Pacific the company went beyond the strict mandate of profitable commerce, assuming a role of promoting various key areas of national development (while becoming exceptionally wealthy, and extremely powerful). Clearly Delaney saw a similar role for Sherritt, and so far he has practiced consistently what he has preached.

First, though, Delaney had to do his best to ignore Helms-Burton. The legislation had been rejected around the world, and even the World Trade Organization--following pressure from the European Union--had lobbied the United States to drop it. Yet Washington resolutely stuck to its guns, much as it had done for decades (George W. Bush is the tenth U.S. president vowing to set foot in a "free and democratic" Cuba), condemning all "traffickers"--the term implying that investors in Cuba were the moral equivalent of drug-traffickers. The Empire was indeed striking back--and one of its main targets was Sherritt International. One conservative observer even noted that Ian Delaney had become a folk hero to many, "a corporate Robin Hood thumbing his nose at the U.S. Sheriff of Nottingham."[26]

Washington clearly has no international support for its legislation, although that hasn't stopped some U.S. media from attacking Sherritt International. The lead article in the March 17,

1997 issue of Business Week was fairly typical of much coverage of Sheritt's role in Cuba. The cover showed a smiling Ian Delaney outside Sherritt's headquarters in Havana, a smile on his face and hands on his hips. The headlines of the issue was "Castro's Capitalist," and underneath it stated provocatively: "Fidel Castro is counting on foreigners like Canada's Ian Delaney to save Cuba's economy. The U.S. wants to stop him." Inside, the tone was just as provocative: "Meanwhile, Washington has a new Public Enemy No. 1. 'Ian Delaney has made a deal with the devil,' like those who 'did business with Hitler's Germany or Stalin's Russia,' fumes Marc Thiessen, an aide to Senate Foreign Relations Committee Chairman Jesse Helms."[27] Delaney's reaction to the fact that he and Sherritt directors and executives (as well as their families) had been barred from the United States? To frame the letter, and display it in his office. He was convinced--and remains adamantly so--that the tactics adopted by Washington in their Cuba policy were doomed to failure. If the objective of U.S. policy really was to subvert the revolutionary process, or at least to force it to change tack dramatically, the best way to realize this goal, he claimed, was to engage Cuba, and not treat it like an international pariah. His interpretation, however, remained anathema to Washington--which continues to wring its hands at Sherritt's increased role--and steady profits.

Sherritt Diversifies Its Interests in Cuba

The metals investment has been an outstanding success, and the doubling of feedstock between 1994 and 1996 speaks volumes for the approach taken by the joint venture.[28] The same can be said for the role of oil and gas interests of the company. Solid financial returns, the aggressive stance taken by the company, and continuing media coverage combined to maintain

the company in the public eye. Sherritt International was clearly seen as a winner, and when in 1996 the company released a debenture issue, it was rapidly oversubscribed. At first the issue was for some $300 million, but in fact this amount was taken up in a matter of hours, and so the issue was expanded--in all some $675 million was invested in the company's activities in Cuba, an enormous amount to be invested in Cuba-- a country with an estimated Gross Domestic product of just $US7 billion. Even the Communist Party of Canada was rumoured to be recommending that, if its members had to invest in capitalism, they should invest in Sherritt.

The $675 million debenture issue of November 1996 (obtained in a matter of days) was a benchmark in the growth of Sherritt International, since the popular reaction to it showed clearly the depth of popular conviction about Ian Delaney's plans for Cuba. The hawkish businessman already possessed a reputation as an intense competitor. This, together with his "track record of buying assets on the cheap and unleashing their value,"[29] was a powerful combination, and was extremely attractive in Toronto's Bay Street financial district. As one knowledgeable source commented on Ian Delaney's approach to investing in Cuba: "A lot of people, including us, have great admiration for the man. He's a bottom fisher, and a very successful one ... That's what he's doing in Cuba, and he's doing it very sensibly."[30] The difference this time, however, was that he was seeking to use his approach not just to turn around a single company, or even an industry, but rather a whole country. In other words, he was seeking to position Sherritt International as the prime mover/gatekeeper among foreign investors, and seeking to employ his company as a major nation-building element in Cuba.

This latter aspect is worth dwelling upon, for it reveals his profound commitment to a greatly increased role for Sherritt in Cuba. That country, he noted in 1997, "represents the best

single investment opportunity in the world. That opportunity, coupled with one of the most delightful cultures in the world--and just three hours from Toronto--offers us the best of all possibilities."[31] It is not clear at what point Delaney envisioned a role for Sherritt far beyond the investment in Moa, but by early 1997 clearly he could see a far broader picture. In his address to the Canadian Club in February 1997, for example, he noted his ambitious goals for the company: "Our corporate development plans call for us to make investments in those industries in Cuba which will reflect the powerful export industries of nickel, sugar, sunshine. And also in those infrastructures--transportation, communication, property development and power generation." Clearly he was thinking about the big picture in Cuba--and the comparison with Canadian Pacific at a crucial stage of Canadian national history seems pertinent. Just as evident is Delaney's belief that the future of Sherritt at that time was linked completely with that of Cuba. In his 1999 address to shareholders he summed up the company's approach with characteristic succinctness: "There is no opportunity in Cuba that we won't examine."[32] True to his word, Sherritt's management team scoured the island to seek out investment opportunities, and their recommendations have led to various subsequent projects.

A variety of other investments by Sherritt soon started to sprout. One of the most promising is the company's 40% stake in a cell phone company, "Teléfonos Celulares de Cuba S.A." (or Cubacel as it is most commonly known). Some 37.5% of it was purchased in February 1998 for about $US38.3 million, and a further 2.5% was acquired in 2000. This was a particularly good investment, since cellular phones had only just arrived in Cuba. At that time there were only 3,000 subscribers, although with the increasing number of foreign business people and tourists, as well as the large diplomatic community, there was significant potential for

growth. The fact that Sherritt had bargained for the exclusive rights for some 20 years to provide both analogue and digital cellular service in the 800-megahertz band throughout Cuba also guaranteed solid future returns. The use of cell phones has steadily increased, with many government officials and joint venture partners proudly showing off their new status symbols around town. Since there is no U.S. competition in this growth sector, and in light of the increases in tourism (2 million visitors in 2001) and foreign investment (there are now over 400 joint ventures), the significant role played by Sherritt in this sector can only continue to prove profitable. The major market--the Cuban public--remains an elusive target, however, since the Cuban government seems unconvinced that widespread mobile communication is that desirable. When that floodgate does open, however, Cubacel's profits will rise dramatically.

In Latin America in particular the cell phone market has been growing at a far greater rate than in the mainland United States. In Cuba too, despite restrictive government policies on the population owning cell phones, the rate of growth has been consistent. In 1998, for instance, the company marked a 20% increase in the number of subscribers. The following year Cubacel increased its number of subscribers by some 29% over the 1998 figures. It also expanded its programme outside the Havana, moving to the fast-growing Holguín area. In 2000, however, it made even greater progress, with a 30% increase in the number of subscribers, as well as expanding service to cover twenty of the largest cities, and receiving a license to provide e-mail, data transfer and internet access services in Cuba.

Less profitable is the 50% interest in market gardening which the company has with the Cuban government in establishing "Sherritt Green." This is on a 200-hectare area of land, growing a variety of produce largely for the tourist market in nearby Varadero. Significantly

there has been little information provided in the company's annual reports, or few comments made at the annual shareholders' meetings about this operation--leading observers to think that the operation must not be particularly profitable. (The 1997 and 1998 reports issued the same bland statement--two sentences long--on the operation, while the 1999 and 2000 reports ignored it completely. Nor was it mentioned in the spring 2001 meeting of shareholders held in Toronto). The jury is still out on a large soybean processing plant in Santiago de Cuba in which Sherritt International has a 49% interest. The plant--which started up in April 2001 after many delays--seeks to produce 500 tonnes daily of various processed forms of soybeans.

Somewhere between the roaring success of the major investments of Sherritt in Cuba and the market gardening project lies the interest of the company in tourism--and specifically shares in several hotels. Sherritt International has a 25% indirect interest in the 340-room Las Américas hotel in Varadero, as well as a 12.5% interest in the 400-room Hotel Habana in the western section of the capital. Both are large modern, five star hotels managed by the Sol Meliá hotel chain of Spain. One gets the sense that both projects are not in the least central to Sherritt investments in Cuba--that they were simply good investment projects at a time when the company was flush with cash, and wanting to branch out into non-traditional areas. (Since part of Canadian Pacific's main thrust was to build well-appointed hotels alongside the railway track, one wonders if this was a contributing factor in the Sherritt investments in this field).

An area which is tied in with the company's search for oil and gas is power-generation, basically harnessing the natural gas from the exploration programmes that previously had been flared off. In 1998 a new enterprise was launched, Sherritt Power Corporation, to finance and operate power-generating businesses on the island. Sherritt International holds 49.7% of the

common shares, and $75 million in Sherritt Power Notes. In turn Sherritt Power owns a one-third indirect interest in Energas, S.A., a company that was established to build and operate energy-generating facilities in Cuba. The other two partners--each with a one-third equity interest--are Unión Eléctrica (UNE) and Unión Cubapetróleo (CUPET), both of which are Cuban government agencies. The objective is to produce economic power using the national gas found in the petroleum fields of Cuba.

To date two major power plants have been built, with a combined capacity of 131 megawatts. These are located at the Boca de Jaruco and Varadero petroleum fields on the north coast, east of Havana. In addition work has been undertaken on an existing turbine at Varadero, which provided a further 20 MW. of power, and is being completed on the extension of the plant there to provide a final 75MW. This initiative has proved extremely helpful to the Cuban state (still struggling with insufficient oil supplies), and in addition is environmentally-friendly, since it captures the excess natural gas resulting from oil exploration that traditionally had been flared or burned off. (It also reduced air pollution significantly, since prior to starting the plant in 1998, impurities in the raw gas were released into the environment when the gas was flared). This technology, using gas-fired turbines, was unusual for Cuba, but had been successfully employed in western Canada. Initial estimates were that the Varadero electricity holdings could last for some twenty years, with the Boca de Jaruco facility having sufficient natural gas for at least eleven years. This represents approximately 10% of the annual electricity produced in the country, and with the planned extensions, this could nearly double in coming years. (In addition Sherritt Oil and Gas is now producing about 30,000 barrels of oil per day, some 55% of Cuba's national oil supply--again evidence of a crucially important role for the company). It remains to

be seen what will be happen after the Varadero plant is completed, but is not beyond the realms of possibilities that Sherritt Power will expand its power-generation capability on the island--or indeed elsewhere. (The purchase of Luscar Coal in 2001 might well figure into the equation if Sherritt does decide to pursue energy-generation opportunities in North America). Certainly Sherritt Power has the experience, technology and trust of the Cuban government--which is desperate to find an inexpensive power source, and in this way avoid the erratic international prices for fuel.

Sherritt Power has been relatively profitable in the short time that it has been in existence. There had been some start-up difficulties, as Ian Delaney hinted in the 1998 Annual Report of the company: "All of the logistical problems one would expect to encounter in a foreign jurisdiction, in a developing country with a lack of proper infrastructure, were met and overcome. The project phases to date have been on budget and delivered according to specifications. Results to date are better than forecast."[33] The experience of commissioning these two plants from the ground up has clearly been an extremely positive for Sherritt--in many ways reminiscent of the larger plants it had built for its refining operations many years earlier. The company has reached a fairly high stage in the learning curve, and is the logical partner should the Cubans seek to develop this form of power generation.

Reflections on the Cuban experience to date

So how can one summarize the 1990s and beginning of the millennium for the company in Cuba? Ian Delaney's foray into Cuba was clearly his boldest gamble to date, on many levels. First of all, he was wading into a foreign country--a revolutionary socialist one at that--whose

leaders had traditionally seen people of his ilk as pariahs. In addition he was faced with the extremely tough challenge of seeking to blend diverse work habits, philosophies, cultures, and traditions. The uniting factor for both partners of the joint venture was the desire for profits which, in theory at least, should have overcome easily all obstacles. But theory in a Toronto boardroom and practice in a Moa mine are two very different matters, and both sides have learned more than they probably appreciate. And finally, in taking as a partner revolutionary Cuba, Sherritt International was becoming a de facto enemy of the world's only superpower--which, unfortunately, had also traditionally been its major client. So, on one level, while the decision to obtain nickel for Fort Saskatchewan made eminent sense, it was one that was also fraught with difficulties that soon made their presence felt. Clearly it was not a deal for the faint-hearted--and fortunately for Sherritt, Delaney is anything but that.

But putting aside the dangers of provoking the wrath of Washington, or the frustration stemming from radically different management philosophies, has it been successful? On one remarkably easy level, it clearly has been--for the Fort Saskatchewan refinery is not only alive (in itself a dubious proposition in 1990) but also continues to improve upon its production levels. At the annual shareholders' meeting in Toronto in the spring of 2000, Ian Delaney answered concerns about the competition offered by INCO's Voisey Bay operation in Labrador, which has enormous reserves of nickel. Much had been said in Canada about the vast deposits which the competition had at its disposal (albeit in an extremely difficult location). How would Sherritt fare in toe-to-toe competition with these other resources, he was asked? He was characteristically blunt: "There is no shortage of nickel reserves in this planet. Therefore the key factor is getting the nickel out of the ground. We are fortunate in Cuba that we have good

management who have relentlessly driven our costs down over a period of five years so that--no matter how bad that business gets--I believe that we'll be the last man standing."[34]

A useful comparison of the evolution of Sherritt International these past years can be made by studying some key indicators from 1995 (when the Sherritt corporation as such was divided), 1966 (the first full year of production by Sherritt International, and 2000 (the most recent year for which there is comparable data available). There are two key areas to be examined--financial earnings, and production data--and in many ways the facts speak for themselves:

Key Indicators of Sherritt International

	2000	1996	1995*
Statement of operations	480,355	284,692	26,893
Operation earnings (metals)	70,068	40,117	7,518
" " (oil and gas)	79,571	13,578	2,237
" " (Other)	3,832	568	282
Net earnings	115,570	33,345	7,378
Capital assets	507,406	320,386	269,706
Investments and other assets	284,647	122,449	16,955
Cash provided by operating activities	129,169	52,726	14,963
Production volume (nickel, tonnes)	14,035	12,665	11,672
" " (cobalt, tonnes)	1,427	1,037	865
" " (oil, barrels per day)	30,356	6,561	7,189

" "	(fertilizers, tonnes)	340,302	68,043	---------

* Figures in thousands of Canadian dollars

Source, Sherritt Annual Report, 1999, p. 45, and 2000, p. 41.

In late 1996 Toronto money manager Ira Gluskin reflected on the strategy being initiated in Cuba by Ian Delaney at that time--and the risks that he faced as he headed into comparatively unknown territory. "It's obviously a major bet," he conceded. At the same time, he noted, the Sherritt CEO had "motivation, contacts and a ton of money. So the odds are he'll do well."[35] The business ledgers, and production figures, would appear to bear him out, for Sherritt International's incursions into Cuba since the mid-1990s--notwithstanding tremendous obstacles and major headaches--have undoubtedly been extremely successful. Indeed in many ways they are extraordinary feats. It could also be argued that the face of national economic development and investment strategy in revolutionary Cuba has been radically altered as a result of Sherritt's role: for the first time in four decades a major capitalist influence on the country had resulted through the intervention of a foreign investor. (Indeed, Cuba's survival strategy in the face of the demise of the Soviet Union, came to depend on strategic joint venture relationships with foreign companies--and Sherritt is still consistently put forward by senior government officials as the model for foreign investors to emulate).

But in addition to being a model for joint ventures in Cuba, Sherritt International has also provided a primer in how to seek out investment opportunities abroad, regardless of the dominant ideology. Sherritt's evolution in Cuba, from the time of its original interests in nickel- and

cobalt-mining until its decision to carve out a niche for itself in non-traditional industries (power generation, market gardening, hotel management, food processing and cell phones) speaks volumes both of the way in which the management was able to think quickly on its feet--and of the way in which the company succeeded in adapting to changing circumstances and challenges that arose. Not only did Sherritt manage to double in just two years the nickel and cobalt production figures at Moa (and one should remember that the figures given above represent only Sherritt's half of the joint venture), but it also became the major oil and gas producer in the entire country, and produced substantial profits and equity for its shareholders.

The irony of Sherritt's success in Cuba is that it was so noteworthy that it annoyed some of the hardliners in Havana, who were disturbed to see capitalism doing so well--even if the socialist government itself was reaping one-half of the profits. It was the principle of the thing, they felt, since the doubling of nickel production at Moa in just two years revealed starkly to them how inefficient traditional management at the plant had been. From the outset several key revolutionaries had been disturbed by the necessary marriage of convenience that had befallen the country because of its tragic economic conditions. They were dismayed at the revolution having to make such strategic alliances with foreign capital in the first place. In essence their frustration boiled down to the fact that Sherritt had simply been too successful in its initiatives (making profits!)--and as a result from 1997 on some elements of the Cuban government had tried to restrict the company's size. They had initially been quite successful in doing so--which led Ian Delaney to return a 10 cent dividend shares and also buy back some of its outstanding debentures in May 2000. The reason for this? "Too much cash and a ton of earnings" in Delaney's words. He was also concerned that Havana was not as keen as he was to turn Sherritt

into the "Canadian Pacific of Cuba"--which meant that his war chest for investments was not being used effectively.

Cuban conservatives, concerned at the growing importance of Cuba in their country, were aided by the steady, if unspectacular, rebounding of the Cuban economy. By 1996 Cuba had clearly survived the worst of the economic crisis, and its tattered economy showed signs of economic recovery. The hardliners in the government, pleased with this course of events (while perhaps ignoring that most of this was the result of liberalization of government policy) pressed to tighten up the economic reforms that they had grudgingly introduced after 1993. In certain sectors their scepticism to foreign investment remains deeply rooted. The revolutionary process, they believe, should be maintained by the dedication of socialist revolutionaries--and not capitalist investors. For this conservative sector of the Communist Party of Cuba, Sherritt International had already grown very large--clearly too large for them. Yet their concerns had to be expressed delicately--given the strong professional and personal ties that had developed between Sherritt and Cuban officials in recent years. In addition at all times Havana has to take into account the enormous strategic importance of the joint venture--particularly in the nickel/cobalt, oil and energy sectors--and has to show appreciation for the political penalties paid by the company (After all, Sherritt International is the only company in Canada whose management has been banned from travelling to the logical centre of commercial activity, the United States). The end result of this is that Havana has occasionally pursued an erratic path in dealing with Sherritt, welcoming its investment in time of need, but reacting coolly when the Cuban economy had started to rebound--fearful of Sherritt holding an excessive concentration of economic power.

In the last analysis Havana also had to bear in mind that Cuba still needs foreign investment. The government could not be seen, therefore, as treating shabbily one of its strongest joint venture partners, since this would obviously have a negative impact upon other potential investors. (And clearly for the forseeable future, whether it likes it or not, the Cuban revolution will continue to need foreign capitalism in order to maintain the gains of the socialist revolution). But it is also clear that, from Havana's perspective, the company had reached a benchmark in its investment. Sherritt International investment would always be welcome in revolutionary Cuba--but in areas where the government saw a special need (energy, and power generation in particular). Reading the political tea leaves, Sherritt management clearly decided to maintain their highly profitable investments in Cuba--but also to look elsewhere for fresh investment possibilities. (The 1999 purchase of 10% of Anaconda Nickel in western Australia at a cost of $39 million, and in the spring of 2001 the takeover of Luscar Coal in Alberta (for $362 million and assumption of approximately $600 million of Luscar's debt) is the clear result of this strategic positioning). Cuba will remain important for Sherritt--which will stay interested in solid investment opportunities--but the company is clearly also looking more aggressively elsewhere.

The Sherritt decade in Cuba has been a remarkable period, in many ways an emotional roller-coaster--yet at the end of the day a most profitable ride. During that time the market value of Sherritt had increased several times over, a solid financial return had been made to shareholders, and Sherritt's international profile had increased substantially. The corporation which emerged in the new millennium was totally different from that of a decade earlier when a group of young financial Turks wrested control from management of a slumbering--many would

say moribund--company. Indeed it was also hardly recognizable from the Sherritt of just 5-6 years ago. Sherritt had survived a dramatic division of the corporation's assets, and boldly pursued a radically different development strategy. In actual fact "survival strategy" seems more apt to describe the first three years--although as time passed and as a new focus was given to the company's goals, a dramatically different (and profitable) plan resulted.

Has the foray into Havana paid off? Absolutely. Indeed in many ways Sherritt was too successful--which would explain the reticence in some conservative sectors of the Cuban government, as well as the venom employed by right-wing Cuban-Americans. The end result of this decade of "going where no man has ever gone" to use the lexicon of the Starship Enterprise, has been an extraordinary (and profitable) commercial experiment. Sherritt International is now in the position of being able to develop its extensive investments in Cuba, while also looking elsewhere to invest its profits. In May of 1999 Ian Delaney stated as much when he hinted that the company would also be seeking other business opportunities elsewhere, because "there's a limit to the rate at which you can invest in Cuba that's limited by their infrastructure."[36] The Cuba decade of Sherritt ensured the company's survival, stocked the company's war chest, and provided opportunities for expanded growth in Cuba and elsewhere. The gamble had paid off.

NOTES

1.Interview with Ian Delaney, Sherritt International offices, Toronto, September 28, 1998.

2.One illustration of micromanagement was given by Bud Kushnir, former Vice-President (Fertilizer): "I can remember one occasion when we needed capital approval to buy a half-ton pickup truck for $2,500. We had to make a justification to the Board as to why we needed a pickup truck. We actually had to take pictures of the old one that was falling apart and show them to the Board in order to get their approval. We were handcuffed." Interview with Kushnir, Fort Saskatchewan, June 7, 2001.

3.Anne Kingston, "Our Manager in Havana," Globe and Mail Report on Business Magazine, December 1995, p. 61.

4.See the Annual Report for 1990 published by Sherritt Gordon Ltd., p. 4.

5.See the summer 1991 issue of Sherritt World, p. 1.

6.See "CEO Addresses Local Chamber," in the Summer 1992 issue of Sherritt World, p. 1.

7.See the Annual Report for 1992 published by Sherritt Gordon Limited, p. 6.

8.Cited in Anne Kingston, op. cit., p. 55.

9.Address by Ian Delaney to the Canadian Club, Royal York Hotel, Toronto, February 24, 1997.

10.See his comments in Sherritt Inc., "1994 Annual Report." p. 2.

11.See the report, Cuba's Economic Reforms: Results and Future Prospects published by the Financial Research Institute in Havana in 1997. Data here is found on p. 18.

12.See Ian Delaney's "Report to Shareholders," Sherritt International Corporation, "Annual Report 1966," pp. 2-3,

13.Eric Reguly, "Close, But No Cigar for Cuba Watchers," Globe and Mail, May 21, 1998, p. B13.

14.Address by Ian Delaney to the Canadian Club.

15.Cited in Peter Fritsch and José de Córdoba, " Sherritt's Payoff in Cuba Bittersweet," Globe and Mail, October 7, 1997, p. B. 19.

16.See "Cuba and Sherritt Conclude Cobalt/Nickel Joint Venture Agreement," Press Release, Havana, December 2, 1994.

17.For a highly readable history of this company (founded in 1882), see Charles S. Lee, Land to Energy, 1882-1982 (Canada Northwest Energy Ltd., 1982).

18.Canada Northwest Energy traces its origins to 1882, when the Canada-North-West Land Company (Limited) was established, after the Canadian Pacific Railway sold 5 million acres to the company. In 1949--two years after the discovery of oil in central Alberta encouraged oil exploration on company-owned land--the company started to lease its land to prospectors. Within five years 241,000 acres were under lease to oil companies, and three working oil wells were in production. For further details see ibid.

19.See Paul Simao, "Controversial Canadian Firm Sherritt Profiting in Cuba," in the CubaNet news section (www.netpoint.net/~cubanet/CNews/y98/apr98/28e5.htm)

20.Ibid.

21.Ian Delaney's address to the Canadian Club, op. cit. He concluded: "Our company has done more to improve the lot of average Cubans than all of the embargoes of the last thirty years."

Most responsible analysts accept the fact that Cubans who work for foreign investors, far from being exploited, in fact live significantly better than Cubans who work for state enterprises. Sherritt's own pay scheme is among the best on the island, and Sherritt Vice-President Patrice Merrin Best is correct when she notes "With stimulation pay in dollars our employees are making four to five times as much as their neighbours do, and that gives them tremendous purchasing power in the local economy" (Interview in Toronto, September 20, 1999).

The opposing charge is led by Cuban-American congresswoman Ileana Ros-Lehtinen, who noted sarcastically "It is wonderful for Canadian business to condone slave labour practices because you don't have to worry about those nasty battles of workers' rights." Her comments are featured in the conservative Toronto Sun newspaper. The best reply came from a Cuban worker interviewed in the same article: "If this is slave labour, then Cubans are desperate to be enslaved. And no Jesse Helms need liberate them." The author of the article, referring to Sherritt's role in Cuba, noted that the company had "brought in Canadian standard practices, from steel-toed safety boots to eye protection. Their company-provided meal each shift is twice the daily caloric intake of the average Cuban." See Michele Mandel, "'I Am Not A Slave': To the chagrin of the U.S., most Cubans who work for Canadian companies are prospering," Toronto Sun, March 15, 1998.

The social impact in Moa of Sherritt's investment has been significant indeed. From improved environmental conditions to the presence of several dollar stores and ATMs, from equipment donated to the local hospital to subsidized building materials for employees building their homes, the community has gained substantially. At the plant, improved showers and

changing rooms, and a substantially reduced industrial accident rate, have also been welcome improvements.

22.Cited in Paul Waldie, "Beware of Sherritt, U.S. warns," Globe and Mail, November 13, 1996, p. B1.

23.Sherritt vice-president Patrice Merrin Best, quoted in Laura Eggerton, "Sherritt releases names of VPs that U.S. to ban," Globe and Mail, March 18, 1997, p. B3.

24.The Canadian government reacted strongly to this U.S. decision: "In Ottawa, Trade Minister Art Eggleton called the move outrageous. Eggleton said it's ridiculous to deprive some Canadian children of the chance to visit Disneyland, noting that kids are a hardly a threat to America's national security." See Robert Russo, "U.S. to bar entry to some Canadians," Halifax Mail-Star, July 11, 1996, p. A10.

25.Cited in Paul Heinzel and Paul Waldie, "Our Man in Havana," Globe and Mail, November 16, 1996, p. B5.

26.Peter Foster, "Capitalizing on Cuba," Saturday Night, July/August 1998, p. 25.

27.See "Castro's Capitalists," Business Week, March 17, 1997, p. 33.

28.In their haste to condemn Sherritt for "exploiting" Cuban workers, U.S. legislators often forget that in fact the company has improved significantly the lot of workers at their plant--as noted in an earlier footnote. Sherritt has also improved noticeably the environmental conditions in Moa by modernizing and replacing much of the badly outdated plant. More efficient acid baths, major improvements to the tailings pond, and a large reforestation project, have all occurred in recent years. Werner Bink, the first plant manager at Moa, remembers his first impressions of Moa: "The plant was in bad shape. There was a major air pollution problem--which we've addressed with some success. Acid mist used to hang over the plant, the equipment was dilapidated--and in fact it looked somewhat like Dante's version of hell." Interview with Werner Bink, Toronto, August 20, 2000.

29.Heinzel and Wallie, p. B1.

30.Mike Fulton, vice-president of Canadian Equities, with Royal Bank Investment Management Inc., cited in ibid., p. B1.

31.See Ian Delaney's address to the Canadian Club.

32.Reply of Ian Delaney to a question from the floor, Sherritt International Shareholders' meeting, Roy Thomson Hall, Spring 1999.

33.See his "Report to Shareholders," Annual Report, 1998, Sherritt Power Corporation, p. 2.

34.Ian Delaney, answering a question at the annual shareholders'meeting of Sherritt International, Roy Thomson Hall, Toronto, spring 2000.

35.Cited in Heinzl and Waldie, p. B5.

36.Cited in Keith Damsell, "Sherritt Armed with $510 million and Hunting Acquisitions," Financial Post, May 28, 1999, p. C5.

4). All of these factors, however, are integral parts of the Sherritt picture--and all have contributed to the essence of this company.

But it gets even more complicated. Geographical location is also a problem in seeking to determine the essence of Sherritt, since apart from the nearly fifty years spent at "the Fort," its presence is felt in several other countries. Apart from its majority interests in Cuba, it is also involved (in a minor fashion) in oil development projects in Europe and Asia, has investments in Australia, and is also considering other investments elsewhere. And the spring 2001 acquisition, together with the Ontario Teachers' Pension Plan, of Luscar Coal (which has 10 mining operations in western Canada and has 2200 permanent employees) emphasizes the strong Canadian presence of Sherritt. Moreover its technical staff continue to build upon its decades-old reputation for high quality research and development, and for decades have been employed around the globe setting up and running plants using licensed Sherritt technology. Their expertise is highly regarded still in the international mining engineering community.

Observers of the Toronto Stock Exchange who have followed the fates of the company in this decade will also find it difficult to label the company, much less typecast Sherritt's performance. They certainly have more than enough elements for their analysis. The radical upheaval of 1990, the scramble for feedstock to keep the company afloat, the impact of the Helms-Burton legislation, the large debenture issue of 1996, the widespread media exposure of the corporation (much of it tasteless and superficial) dealing with its Cuban investments, frontal attacks by leading U.S. government figures, the normal roller-coaster of commodities indices, significant acquisitions (Canada North West Energy, the Redwater fertilizer plant, and most recently Luscar), and the large increase in the value of Sherritt shares in recent times, have all

Conclusion

Seventy-Five Years Later: An Overview

Tying up the Loose Threads.....

There is an old East Indian fable which tells of four blind men who, when asked to describe an elephant that was placed in front of them, gave radically different perspectives. One felt the tusks, another the trunk, a third stroked the tail, with the fourth fondling the ear. All faithfully described what they could feel--yet all were unable to provide the necessary overview, the whole picture of the elephant. Something similar could be said about the Sherritt organization, regardless of its various corporate permutations, since it is difficult to grasp in simple terms the inherently complex nature of this multinational corporation. There are just too many variables.

It is clearly far removed from its early days when life revolved around a simple mining existence in northern Manitoba. Nor does its activity solely depend (any longer) around the huge refining facility in Fort Saskatchewan. Fertilizer continues to play an important role in its operations, although it is nowhere nearly as significant as in the days when Sherritt was renamed "Viridian"--in no small degree because of the vagaries of international politics. But also extremely important are its high-tech applications in a number of industries where its sophisticated (and highly prized) metallurgical products are used in a variety of industries. (Unfortunately, perhaps, while most of the original research was done under the Sherritt "label," since the mid-1990s it has evolved with a number of spin-off companies, as outlined in Chapter

been important factors that need to be weighed in this study. Once again it is difficult to give a quick overview of the company's fate during this period.

But in turn the understanding of financial analysts and their appreciation of the company would be radically different from those of the researchers in the company laboratories, the Cuban miners in Moa (also company employees, it must be remembered), the engineers and scientists working to fine-tune operations in Moa and Fort Saskatchewan, the office workers in Toronto, or those on the shop floor at the Alberta refinery. And we are still only talking about the modern period of the company's development. Far different indeed would be the interpretation of old-timers who lived in Lynn Lake, who worked in the pilot plants in Ottawa, and who set up the refinery at "the Fort": they will remember a very different time--and a very different company. Life was indeed far simpler then, and the challenges more clear-cut. The removal of virtually an entire town and the transportation of its buildings on a 165-mile road over the tundra in winter more than five decades ago was of course an exceptional achievement. But it was something that had few hidden surprises, and was fairly predictable to the Sherritt Gordon community at the time. Not so the need to survive in the modern international corporate maze, beset by a far more aggressive business climate and no-holds-barred competition around the globe, with political concerns now as important as economic factors.

So what can be said about the Sherritt story that is not facile or repetitive? In 1978 the "official line" of the company was relatively straightforward: "In the early 1920's, Sherritt Gordon Mines Limited was just a miner's dream. Today, it is a producer of non-ferrous metals and fertilizers for the world. The story of this growth is the story of a fruitful partnership between man's technology and earth's riches... The story is one of pioneering boldness. Sherritt

discovered nickel in land that experienced prospectors had judged useless. To establish a mine, it moved an entire town on sleighs through the rugged Canadian winter. In anticipation of a world food shortage, the company gradually built up an investment of 35 million dollars in fertilizer manufacturing facilities." [1] The language seems somewhat reminiscent of a Hollywood press release of the time, with little hyperbole being spared. In actual fact, the truth was--and is--significantly more complex. And understandably, a quarter of a century later, there are very different points to be made about the Sherritt of today. Having had the opportunity to plough through scores of company reports, meet with dozens of employees in Canada and Cuba, try to understand (albeit with limited success) some of the many scientific papers published by members of the R and D sector, and visit the Canadian and Cuban facilities in recent years, I believe that there is a common denominator to the Sherritt experience. Indeed there are several points that deserve to be emphasized.

The Roman poet Terence (190-159 B.C.) is reputed to have written that "Fortune aids the brave," and it can be argued that Sherritt has indeed had its fair share of good fortune at critical stages of its evolution. An example in point is the role of fertilizer in the fortunes of the company--and it should be remembered that for many years it was the fertilizer side of the business which kept the company afloat when mineral prices were in the doldrums. What is not widely appreciated is just how Sherritt Gordon came into the fertilizer business in the first place. Eldon Brown put this clearly in context: "The company's start in the fertilizer business was rather unusual in that we were really pushed into it. Following the discovery of our Lynn Lake nickel deposit, some twenty years ago, we organized a research group to find a better method of producing nickel from concentrate than the conventional methods in use at that time. After some

years of effort our research people came up with a new process which made use of ammonia in recovering the nickel, copper and cobalt from the concentrate. With this new process, instead of pouring out a smokestack and devastating the surrounding countryside, the sulphur in the concentrate combined with the ammonia to form ammonium sulphate, a very useful by-product. At that time we were not particularly anxious to get involved in an entirely new type of business as we already had enough problems in connection with getting our new mine into production and building a refinery to use a radically new process. Consequently we tried to buy or rent the ammonia we required and proposed to return it in the form of ammonium sulphate. A deal along these lines would have saved us five or six million dollars in capital expenditures and would have kept us out of the fertilizer business. Fortunately for us we were unable to buy or rent ammonia so we were forced to build an ammonia plant of our own, which automatically put us into the fertilizer business."[2] Brown's self-effacing critique, and sound business sense, soon reached an inescapable conclusion: "We found the fertilizer business was not such a bad business to be in, and it seemed obvious that if it was attractive to be in it in a small way, it should be much more attractive to be in it in a big way."[3] With a combination of savvy, the ability to take advantage of the new phase of operations--and some luck--Sherritt Gordon soon found itself involved in a very lucrative facet of its work. Indeed, had it not been for this "sideline," the company could well have closed down shop at Fort Saskatchewan.

Nearly four decades later good fortune again smiled on the company, courtesy this time of international events several thousand miles away. Political developments surrounding the implosion of the Soviet Union, as well as the resultant economic crisis in Cuba, corresponded with Sherritt's desperate search for feedstock to refine in Fort Saskatchewan. Some thirty years

earlier the March 1960 issue of the company publication the Nickelodeon had talked about the nationalization of the Freeport Nickel Company in Moa, and referred to "the unpromising official conditions" in Cuba. What a difference thirty years makes! Now, just at a time when the plant was closed down, and when there was no certain supply of feedstock, it just so happened that Cuba--depository of some 30% of the world's nickel--was desperately in need of a refiner for its feedstock.

But while good fortune might have been an element of the Sherritt success story, there is no denying that the company has been more than ready to take advantage of the opportunities presented. Eldon Brown immediately saw the potential of income from the sale of fertilizer--particularly since the refinery was located right in the middle of the Prairies. So too Ian Delaney was able to grasp the desirable nature of guaranteed long-term feed supplies to keep Sherritt solvent. (Indeed his ability to "dream in technicolour," resulting in the joint venture in Moa, and then expanding operations to a variety of lucrative business enterprises in Cuba, revealed the company's ability to seize several other opportunities).

The same can be said from Sherritt's decision to go into the coinage business. In 1961 the first nickel coinage blanks for coins were shipped to the Canadian Mint at Ottawa for the 5 cent coin. Since the nickel that is produced at the Fort Saskatchewan refinery comes out as powder, there are a variety of innovative ways that it can be used. One of these was powder rolling, whereby the nickel is passed through a mill, and is flattened. The research of the late 1950s (and the construction of a pilot powder rolling mill built in 1960) coincided with a dock strike in England--from where 5-cent coin blanks had been shipped to the Canadian Mint. Sherritt quickly inquired to see if it could supply the blanks--and was given the task. Since then

Sherritt technology has produced coinage, medals and coin blanks for a number of countries. Once again company employees have shown an exceptional ability to "think on their feet," and to diversify their product range.

The most recent example of this ability to adapt to changing circumstances was the purchase of Luscar Coal in early 2001 by Sherritt together with the Ontario Teachers Pension Plan Board, who together formed the Sherritt Coal Partnership. Ironically the energy-starved United States--the same country which has banned Sherritt executives from setting foot there because of the company's investments in Cuba--may well now prove the major customer for Sherritt coal. Yet again Ian Delaney found an under-performing country, starved for cash, and with good potential. The market appeared to approve of the deal too, for Sherritt International stock rose from $4.30 to $5.34 following the purchase. Indeed Sherritt stock was chosen as "pick of the month" by the Globe and Mail's Patrick McKeough on June 1, 2001. With blackouts in California and energy shortages in other states, the company appears poised to export large amounts of coal to the United States. (Indeed, given Sherritt's energy-generation experience in Cuba, why not consider building its own coal-fired plants?) Luscar owns 650 million tonnes of proven resources of coal--material which has seen its price rise from $4 to $12 a tonne in just the last two years. (It is also Canada's largest coal producer, shipping some 40 million tonnes of coal annually, and owns 10 coal mines in Alberta and Saskatchewan). In many ways this acquisition is the 21st century version of Eldon Brown's decision to build the refinery at Fort Saskatchewan--since both moves were audacious, but well considered.

Another important element in the Sherritt story is the sheer determination, and hard work, shown throughout the company's history by many of its employees and executives. Eldon

Brown and Ian Delaney are the best known symbols of this--and rightfully so. But there are dozens of examples of this phenomenon in the company's history. My own favourite is the dramatic move to Lynn Lake almost 55 years ago. To transplant a 2,000-ton mining plant and concentrator, along with virtually an entire town--some 165 miles (of which 70% was over frozen lakes) was an extraordinary venture. The record of tenacity and grit of the company's employees, is quite exceptional--and examples abound: the prospecting activities in the early days;[4] the work in setting up the pilot plants in Ottawa (at a time when the Newmont Mining Company--on whose financial backing the future of Sherritt Gordon depended--was breathing down the researchers' backs to see if this novel approach to hydrometallurgy would actually work in larger experiments); the day-to-day heroics at Fort Saskatchewan (particularly in the early years when ingenuity and problem-solving skills were a prerequisite); and the many years clocked in by scores of Sheritt engineers and technicians abroad,[5] . As long-time employee Victor Benz (whose father before him worked at Sherritt for many years, including a stint at the pilot plant in Ottawa, and whose brother Mark runs the coinage division at Westaim) put it: "This is a company with as 'can-do' philosophy. We were never to say 'We can't.' It's also a company where you leave your ego at the door, as all pitch in together. No navel-gazing here: we work together and look for pragmatic solutions."[6]

Much also needs to be said about the commitment to research and development throughout the decades at Sherritt, one that goes far beyond what one might expect in a company of this size. The best example from the formative years can be found in the work carried out at the various pilot plants in Ottawa, when the Forward process was rigorously put to the test. Since then Sherritt has consistently sought value-added applications of its products, both at home

and abroad. Its success has been extraordinary: royalties from patents around the world--many from work carried out decades ago--continue to roll in (now gratefully received by Dynatec, one of the companies that was formed in the mid-1990s division of Sherritt); a wide variety of products (from various types of fertilizer to applications of nickel and cobalt in the aerospace industry) are distributed throughout the globe; and cutting edge research at the spin-off companies continues to be undertaken at Fort Saskatchewan in a variety of fields. A good indication of this can be seen in the hundreds of published scientific papers by Sherritt staff over the years. In speaking with industry observers in a number of companies it has become abundantly clear that this emphasis on research and development has always been of a larger profile than the actual production of the company would suppose. Sherritt Gordon "knowhow" and expertise are thus recognized, and respected throughout the globe.

This emphasis on research and development was well analyzed in an article significantly entitled, "Sherritt Gordon: a company sold on in-house R and D," and published in 1969 in Canadian Research and Development. The article concluded that "Sherritt Gordon probably employs a higher percentage of its staff in R & D than any other major Canadian metals producer."[7] The subsequent foundation of the Westaim facility illustrates well this ongoing commitment to harness research to practical goals.

The end result of this extensive research and development programme, combined with the hard work of generations of Sherritt's employees, is an unusual range of goods and services, exported around the world. The use of Sherritt technology from Australia to Finland, from the Philippines to Japan, is well documented. This familiarity with international mining resources, and the self-confidence in proven Sherritt technology, have understandably enhanced the

company's reputation in international mining services circles. This international recognition is not a recent phenomenon, however--for already by 1965 Sherritt was exporting fully 93% of its total production--and to some 30 countries. At that time the principal markets for Sherritt fertilizer were the United States, Korea, Pakistan and India, whereas nickel powder, briquette and strip (as well as their cobalt counterparts) were mainly exported to Italy, Japan, Australia and Germany.[8]

A final element is worth noting. Notwithstanding the large, complex multinational nature of Sherritt, there is also a distinctive Canadian corporate culture to the company. Clearly this has been diluted significantly from the days when the Inter-Divisional Curling Championship took place (with the champions of Lynn Lake taking on those at Fort Saskatchewan), and bags of fertilizer were sold at subsidized rates to company employees. Just is obvious too is the fact that the fast-moving commercial world of today, and the threats of globalization, allow little time for such activities. Having said that, it is obvious that there is a distinctive "feel" to the company, whether it be among the Canadian expatriate workers in Cuba, or their colleagues in the refinery in Fort Saskatchewan. The size of the Sherritt contingents in these two locales, and their importance in local economic life, are undoubtedly major contributing factors to theis Canadian nature. So too is the middle-sized nature of the company. Common to both groups, however, is a clear sense of identity, of being the latest cohort of Sherritt employees, following a decades-old tradition. The fact that there are now three generations from some families working at the Fort Saskatchewan plant also illustrates this identity with the tradition.

Yet the company at the beginning of the new millennium is vastly different from what it was just five or six years ago. And there are positive and negative aspects to this evolution.

Lone gone is the benign paternalism of Eldon Brown's time--it has now been replaced by the gritty pragmatism of the Delaney style. His sternly practical approach was described well as he prepared to acquire Luscar Coal: "Mr. Delaney is also no stranger to bare-knuckled takeovers, as he unseated the board and management of moribund Sherritt Gordon a decade ago in one of the first successful proxy fights seen in this country."[9]

The dramatic changes of the mid-1990s have created some uncertainty among the workforce in Fort Saskatchewan. In many ways this was inevitable, since the traditional relationship was in many ways an anomaly. The chummy management-worker relationship has eroded, and even though there has still not been a strike at the Fort Saskatchewan plant, the 2001 collective bargaining sessions were the testiest in nearly five decades--and went right down to the wire before a solution was found. Many of the old-timers in particular remain disappointed--although not altogether surprised--by this turn of events.

The nature of the Fort Saskatchewan area has also evolved. What was once a classic company town has now changed dramatically in demographic terms. Whereas in the 1950s most residents were associated with Sherritt, that is no longer the case: half of the population is not even employed in the industrial sector, while more than half the workforce in "the Fort" no longer lives there. Even within the city, Sherritt's traditional role has been surpassed by Dow Chemicals, a larger operator with lots of money to invest in local baseball diamonds and other community initiatives. Things, in short, have changed a lot in the last decade. When seen from outside the first reaction is to think that this is unfortunate--a sad reflection perhaps on the economic pressures of globalization. It is too bad that this essence of Sherritt has been worn away. At the same time the alternative--the almost certain closure of the company a decade ago--

is understandably far worse. And, without the re-organization and spinning off of some of the Sherritt assets, the closure of the refinery is precisely what would have resulted.

The Canadian essence of the company, however diluted, is worth dwelling on some more. From the rough-hewn prospectors of over seventy years ago to the dapper Yonge Street executives, they represent a corporate culture that includes characteristics inherent in a mid-sized Canadian company--and which is, thankfully, quite different from their U.S. or European counterpart. The pioneer origins of Sherritt Gordon Mines, the small-town "feel" of Sherridon and Lynn Lake, the dramatic move to Lynn,[10] the common threads of leadership for so many years, the inspiration of Eldon Brown, and the benevolent paternalism of the company over that period, have all contributed to forging a common sense of purpose. Even during the "modern" period after the founding of the refinery, and the dramatic transformation of Fort Saskatchewan, there are common elements that have prevailed. Shared adversity has also strengthened bonds. The lack of feedstock and the ensuing uncertainty, the bitter proxy battle, the Delaney takeover, and the impact of Helms-Burton have all--in their own way--helped to strengthen this corporate identity, making management and employees more aware of each other and of shared goals. On April 30, 1968 Eldon Brown sent his last official communication to Sherritt employees, announcing his retirement after 41 years in the company--following a career as Superintendent, General Superintendent, General Manager, President and ultimately Chairman. His note was to the point: "Between us we have built the Company into a Canadian institution of which we can all be proud. With your continued support I look forward to seeing younger men carry it on to greater heights without losing the unique spirit that has always been a part of Sherritt Gordon." The last three decades, despite their manifest ups and downs, have nevertheless contributed to the

realization of that hope.

And where does Sherritt head from here?

For the immediate future, and under the leadership of Ian Delaney, it is clear that Sherritt International will remain as a major player in the Cuban economy. Simply put, the company has already invested too much for it to be able to ease itself out gracefully--even if it wanted to. Besides, the investments there have proved to be wise ones indeed. An expansion of the extremely efficient mining operation at Moa is likely, in no small part because it is extremely profitable to both joint venture partners.[11] It is probably one of the most efficient and cost-effective integrated nickel-cobalt mining and refining operations in the world, and given the vast amounts of nickel feedstock there (Cuba has about one-third of the world's nickel), it makes clear economic sense to develop the partnership . Oil and gas exploration in Cuba will also continue apace--and is becoming extremely important for all concerned. Power generation and a significant expansion of Cubacel have enormous potential too, providing that government regulations can be made to accommodate Sherritt's interests, and both sides can agree on an appropriate financial arrangement. Speaking in spring 2001 at the annual shareholders' meeting held in Toronto, Ian Delaney summed up the decade of Sherritt's experience in Cuba: "Cuba is our first love, and continues to be... We also continue to think that it is one of the best business opportunities in the world." When pushed about what would happen in a post-Castro world, his answer was concise: "We have predicated no investment in Cuba on a change of government in Cuba. The economy there keeps expanding. As the economy there continues to grow, we intend to follow that up."

But Sherritt will also do what it has always do--adjust to meet challenges. Whether it be the move to Lynn Lake or the division of the company into two distinctive entities, evolution, adaptation and survival have been common factors in the Sherritt identity. Admittedly these have become far more dramatic during the Delaney years, but the underlying principle throughout the company history has been to think ahead, and to be proactive. The purchase of Luscar Coal is a good example of that. In one fell swoop Sherritt has radically diversified its portfolio holdings--already very diverse, but mainly located in Cuba. A Canadian financial analyst put this in perspective: "Sherritt has undergone a huge transition. Just a couple of years ago the company was a nickel play--with some energy exposure ... Now it's more of an energy play, with some Cuban exposure, and this transition should result in a revaluation of Sherritt by the market, which has begun. But there's much further to go. We forecast that 80% of Sherritt's operating cash flow next year will be from its coal and oil operations."[12]

Will the company seek further funding and expand into the energy sector, here and/or in Cuba? Will it increase its 9.4% equity in Anaconda Nickel's operation in Australia? Will it expand significantly its Moa and oil/gas operations in Cuba, and continue to look for opportunities in that country? How long will Ian Delaney stay at the helm after living up to his commitment to spend at least a decade with Sherritt International? How will investors react to Sherritt's future pursuits of corporate acquisition and development? Only a fool would venture a guess at the many complex and diverse challenges implicit in these questions. Based upon 75 years of solid productivity, and remarkable problem-solving (often while teetering on the brink of disaster), one thing remains clear: the solid, and proud, reputation of Sherritt remains intact. In these times of mega acquisitions and dilution of corporate identity this is in itself a major

triumph. The record earnings of $115.6 million for 2000--a startling 74% increase over the previous year--also augur well for the future. Certainly, based upon the dramatic (traumatic?) events of the past 75 years, one fact remains clear: the future promises to be anything but boring.

NOTES

1.See Anon., "Sherritt Gordon," a booklet on the company's history, published by the company in 1978, p. 3.

2.Eldon L. Brown, "Fertilizer plant expansion," Western Miner, December 1965, p. 18.

3.Ibid.

4.In an address to the Empire Club in 1954, Alan "Doc" Gallie talked about the dedication of the pioneering element of Sherritt Gordon: "Our prospectors were the best. After an area had been examined by Austin McVeigh, a casual observer would think a bulldozer had been loose. No stone was left unturned, no moss that was undisturbed. Our pilots flew many thousands of miles and not without troubles. At one time, we had two aircraft wrecked in the bush. One at McVeigh Lake and the second some miles away. Both machines crashed on landing on the ice and had wings torn off. We took them apart and piled the pieces on the shore. After open water, the famous "Flying Boxcar" brought in replacement wings and pontoons. The engineers rebuilt them both and put them back in service." See Alan E. Gallie, "Address to the Empire Club, March 11, 1954, p. 4.

5.Neil Colvin's globe-trotting days as a Sherritt trouble-shooter were cited in Chapter 4. One example--his trip to Finland in 1967--sums up well this facet of the company's work abroad: "A Finnish company by the name of Outokumpu Oy had purchased some technology from Sherritt for the recovery of cobalt metal from pyrite ore. An American firm had supplied the package plants for the production of the hydrogen sulfide required in the process. This was where the political milk kept curdling because a technical error on the part of the Americans had resulted in a hydrogen facility that did not work.

Coupled with the technical flaws were personality clashes with the 'onsite' Americans starting up the plant. Broken schedules caused consternation and anger among the Finnish management. By the time the hydrogen unit finally began to work, the Finns distrusted the Yankees so much they asked Sherritt to provide someone who had experience with hydrogen sulfide generation to supervise the process. This turned out to be me and I went off to the Gulf of Bothnia." See Neil Colvin, op. cit., p. 49.

6.Interview with Victor Benz, Fort Saskatchewan, June 5, 2001.

7.See Anon., "Sherritt Gordon: a company sold on in-house R & D," Canadian Research and Development, Sept-Oct 1979, p. 34.

8.Data provided in "Fort Saskatchewan firm's export accounts for 93% of production," Alberta Industrial Newsletter, vol. 9, p. 4.

9.Andrew Willis, "Delaney digs in with Teachers to scoop Luscar," Globe and Mail, February 22, 2001.

10.One participant in this move penned a verse about the journey to Lynn Lake:

"I moved up there in '52/ with an optimistic throng/
We couldn't buy any lumber, so/ we took our homes along./
They jacked us up in the frigid air/ To battle the wind and snow/
In winter's grip, with mercury. At forty-five below.

They dumped some rations in the door/ And later on returned/
To fetch a load of wood so green/ It boiled before it burned!/
For fourteen days we took the cure/ of weather, wind and storm/
And formed a ring around the stove/ To keep the fire warm!

The cupboard was a deep-freeze/ And only a little crude;/
You'd swear the thing had been installed/ For storing frozen food!
The baby was a problem/ That pains my conscience yet;
We found him frozen to the floor/ Because his pants were wet!"

This poem was written by I.M. Hiltz, who participated in the move.

11.The joint venture agreement provided Sherritt with six ore bodies, four of which will be largely depleted by 2002. The remaining two have a significantly better quality of ore, but are further away from the existing plant. A new plant--at an estimated cost of $18 million--will soon be required to process these new deposits. Within the next decade, all things being equal, Sherritt will expand its nickel cobalt operations--possibly by 2-3 times its current size. The Cubans will support this expansion--since they too are making healthy profits on the operation--and once again Ian Delaney will be called upon to look for financing to pay for the necessary expansion at both Moa and Fort Saskatchewan..

12.Financial analyst Don Anderson, quoted in David Steinhart, "Sherritt tosses Luscar Coal on the fire," Financial Post, June 1, 2001.

Appendix A:

The Sherritt Chronology *

July 5, 1927	Sherritt Gordon Mines incorporated
January 18, 1928	Sherritt listed on the Toronto Stock Exchange
March 31, 1931	Operations begin at Sherridon, Manitoba
June 1932	Operations suspended at Sherridon mine because of low copper prices
August 1, 1937	Production resumes at Sherridon mine
Summer 1941	Austin McVeigh, working as a prospector for Sherritt, discovers Lynn Lake ore
1945	McVeigh stakes Lynn Lake claims for Sherritt
1947	Eldon Brown engages Prof. Frank Forward of U.B.C. to test his metallurgy process on ore from Lynn Lake
1950	First major pilot plant test of the hydrometallurgy process
1951	Newmont Mining buys $8 million worth of Sherritt convertible debentures and 1,112,196 shares of Sherritt stock for $2.00 per share in order to finance the Fort Saskatchewan refinery
1951-54	The town of Sherridon is dismantled and moved to Lynn Lake
September 1951	The Sherridon ore body is exhausted
June 1952	Construction begins on the Fort Saskatchewan refinery
1953	Lynn Lake mine developed
1953	Construction cost overruns expected to exceed the $8 million in financing. J.P. Morgan buys $1 million of Sherritt bonds. Newmont buys $1 million, and the U.S. General Administration pays $5 million in advance for nickel from Sherritt.

July 21, 1954	First nickel powder produced by Fort Saskatchewan refinery
1954	Sherritt supplied metallurgical technology and processes to help design, construct and commission the Moa Bay nickel refinery in Cuba.
1960	Fox Lake ore body discovered
1961	Rolling Mill opened at Fort Saskatchewan to produce nickel strip and coinage blanks from refined nickel powder
1968	Eldon L. Brown, who had joined Sherritt in 1927, and had been president from 1945, retires. (He is inducted into the Canadian Mining Hall of Fame in 1990).
1968	Ruttan ore body discovered. Construction begins on the Fox Lake mine.
April 1968	David Thomas replaces Eldon Brown as President and CEO of Sherritt
July 1973	Production begins at the Ruttan Lake mine
June 1976	Operations close at the Lynn Lake mine after the ore body is exhausted
1983	Major expansion of fertilizer facilities completed, adding capacity for 400,000 tonnes of ammonia and 370,000 tonnes of urea
1985	Russ Latham replaces David Thomas as President and CEO of Sherritt
1985	The Fox Lake ore body is exhausted and the mine is closed
1986	Sherritt writes down the remaining asset value of the Ruttan mine ($24.6 million).
1986	Sherritt is awarded the contract for the production of aureate coinage blanks for the $1 Canadian coin known as the "loonie."
July 1987	Sherritt sells the Ruttan Lake mine to Hudson Bay Mining and Smelting
September 1987	Newmont Mining sells its 33.5% stakes (7.5 million shares) of Sherritt common stock
February 1988	Sherritt sells McLellan Gold Mine

June 1, 1988	The company changes its name from Sherritt Gordon Mines Limited to Sherritt Gordon Limited
August 1988	Inco announces that it will not renew its refining contract with Sherritt (This amounts to some 60% of the plant's nickel input).
1989	Westaim Technologies Inc. is formed to conduct research and development of advanced industrial material
March 1, 1990	Charles Heinrich appointed President and CEO following the retirement of Russ Latham
May 11, 1990	Proxy challenge for control of Sherritt begins
July 1990	Fort Saskatchewan plant idle due to lack of feedstock
September 19, 1990	Ian Delaney and Bruce Walter win the proxy battle for Sherritt
November 1990	Technical Services Agreement between Sherritt and Cubaniquel signed (First Cuban feed is processed at Fort Saskatchewan in May 1991)
March 11, 1991	Sherritt issues 5.2 million shares at $7.35 (for proceeds of $37.3 million)
October 15, 1991	Sherritt purchases Canada Northwest Energy Limited, and forms Sherritt Oil and Gas, which soon becomes extremely active in Cuba
July 5, 1993	The company changes its name from Sherritt Gordon Limited to Sherritt Inc.
February 1994	18.5 million common shares are issued for a total consideration of $194.3 million
March 31, 1994	Sherritt issues $Can135 million of 11% Notes, due March 31, 2004, and $US 100,000,000 Debentures (at 10 1/2%), due March 31, 2014
March 31, 1994	Sherritt acquires fertilizer production and distribution assets from Imperial Oil Limited for approximately $408 million
December 1, 1994	Creation of Metals Enterprise joint venture with General Nickel Company S.A. (Cuba). Three divisions are created: Moa Nickel (operating the Moa plant), Cobalt Refining Co. Inc (or Corefco), operating the Alberta refinery, and the marketing arm, International Cobalt Co.

November 24, 1995	Sherritt International Corporation begins operations after company is divided into two entities, Sherritt International (principally investments in Cuba) and Sherritt Inc. (Principally fertilizer, Canadian oil and gas, advanced industrial materials and technology business).
April 22, 1996	Sherritt Inc. changes its name to Viridian Inc., and in December of 1996 merges with Agrium Inc.
June-Sept 1996	Westaim is spun off from Sherritt Inc., and becomes a separate public company
November 28, 1996	Sherritt issues $675 million 6% 10-year convertible unsecured subordinated debentures
April 14, 1997	Incorporation of Sherritt Power Corporation. Its objective is to finance and operate a power-generating business, principally in Cuba.
September 1997	Dynatec Corporation is separated from Sherritt International
March 6, 1998	Sherritt Power Corporation begins trading on Toronto Stock Exchange
February 27, 1998	Sherritt International acquires 37.5% of Teléfonos Celulares de Cuba S.A. ("Cubacel") for $US 38.25 million)
May 1999	Sherritt buys a 10% interest in Anaconda Nickel Ltd. of Australia
2000	Sherritt International begins to operate at the new Moa Oriental orebody; it now acquires a further 2.5% in Cubacel (for a 40% interest)
May 2001	Together with the Ontario Teachers' Pension Plan Board, Sherritt International acquires Luscar Coal Income Fund for $362.8 million (in addition to assuming some $600 million of Luscar's debts)
July 5, 2002	Sherritt celebrates its 75th anniversary

***Extracted from the company records, Fort Saskatchewan**

Suggested Further Reading

Annual Reports of Sheritt Gordon, Sherritt Inc. and Sherritt International since 1927

Brown, Eldon L., "Notes on Discovery and Financing," Canadian Mining and Metallurgical Bulletin, vol. 48, no. 518 (June 1955), pp. 335-339

Clegg, M.A., "Sherritt Gordon Mines Limited: Description of the Company," Paper submitted to the National Research Council Canada, April 1982

Colvin, Neil, "A Nickel's Worth: Glimpses of People and Places" (Fort Saskatchewan: JLB Consulting, 1999

Fritsch, Peter and José de Córdoba, "For a Canadian Firm, Betting Big on Cuba, Payoff Is Bittersweet," The Wall Street Journal, October 7, 1997, p. 1

Goodwin, Peter and Kenneth D. Ball, "Sherritt's Ruttan Mine Meets the Challenge," Paper presented at the 89th Annual General Meeting of the Canadian Institute of Mining and Metallurgy, Toronto, May 1987

Hames, Charles A., editor, "The Story of Sherritt" (Toronto: Sherritt Gordon Mines Ltd., 1974)

Heinzl, John and Paul Waldie, "Our Man in Havana," Globe and Mail. November 16, 1996, pp. B1, B5

Kingston, Anne, "Our Manager in Havana," The Globe and Mail Report on Business, December 1995, pp. 51-65

Lee, Charles S., Land to Energy, 1882-1982 (Calgary(?): Canada Northwest Energy Ltd., 1982)

Mackiw, Vladimir, D.G. Maschmeyer, and M.A. Clegg, "Technology Partnering in Industry Case Studies: Sherritt Research," Paper presented at the CATA Annual Conference on 'Strategic Partnering II," Ottawa, April 18-19, 1988

Muter, J. R., "Mining at Lynn Lake," Canadian Mining and Metallurgical Bulletin, vol. 48, no. 519 (July 1955), pp. 385-389

Nashner, Sydney, "Refining at Fort Saskatchewan," Canadian Mining and Metallurgical Bulletin, vol. 48, no. 519 (July 1955), pp. 396-410

Oreskovich, Carlie, "Money Galore," The Financial Post, March 1977, pp. 12-16, 42-44

Pearce, Rex F., "Dollar long and day early," World Coin News, November 4, 1986, pp. 14-18

Ramsey, Robert H., Men and Mines of Newmont: A Fifty-Year History (New York: Octagon Books, 1973)

Ruscoe, Michael J.H. "Sherritt Research: A History of Achievement," Unpublished paper, December 5, 1996

Sherritt Gordon Mines Limited, "Sherritt Gordon," n.p., n.d,, probably 1978

------, Sherritt Gordon Nickel Program," November 15, 1951

------, "Lynn Lake, Manitoba," 1956

------, "Enriching Earth's Riches," Toronto: Sherritt Gordon Mines Ltd., 1969 (?)

Sheppard, John S., ed., Thirty Years of History and Collective Bargaining between Sherritt Mines Ltd and Energy and Chemical Workers' Union, Local 530, Fort Saskatchewan (Fort Saskatchewan, Alberta: Jasper Printing Group, 1984)

Strauss, Marina "Sherritt to spin off Cuban operations into separate firms," Globe and Mail, October 27, 1995, pp. B1, B4

Symonds, William C., and Gail DeGeorge, "Castro's Capitalist," Business Week, March 17, 1997, pp. 32-34

Various Sherritt Gordon newsletters, especially "Nickel Odeon," and "Sherritt West"

Wells, Jennifer, "The predators' gall," Financial Times, August 27-September 2, 1990, pp. 8, 10