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HISTOIRE DE MINES DE POIRIER

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Énergie et Ressources naturelles
Québec

De: Rio Algom Mines Limited
335 Bay Street
Toronto, 1, Ontario
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Pour tous renseignements supplémentaires,
s'adresser à: Walter Skol

HISTOIRE DE MINES DE POIRIER INC.

Mines de Poirier, Inc., producteur de cuivre et de zinc, située au nord-ouest de la Province de Québec, appartenant entièrement à Rio Algom Mines Limited, est exploitée maintenant à sa quote-part du programme soit de 1.500 tonnes de minerai par jour. Les travaux de réparation aux usines ont commencé à la fin de décembre de l'année passée.

La propriété est située dans, ce que l'on appelait auparavant du territoire isolé, au côté ouest de la rivière Harricana, à environ 75 milles au nord de la ville d'Amos et à 45 milles au sud de la nouvelle ville-minière Mattagami.

La décision de mettre en production Mines de Poirier a été prise vers la mi-été de 1964. A ce moment là, la Société avait 43.000 pieds de forage au diamant de surface, 35.000 pieds de forage au diamant sous terre et 6.300 pieds de travail de traçage sous terre. Les dépenses s'élevaient à 2.4 millions de dollars.

Les réserves de Poirier, comptées jusqu'à un horizon sous terre de 1.600 pieds, sont évaluées à 3.7 millions de tonnes d'une teneur de 1.74 pour cent de cuivre et de 3.63 pour cent de zinc. Ce total comprend un facteur de réduction de 10 pour cent. Les chiffres des réserves n'indiquent que la zone principale de minerai. On n'a pas encore fait d'épreuves pour les zones sattelites.

Géologie

En 1959, une superficie d'environ 100 milles carrées, dans la région Joutel-Poirier a été sélectionnée par Rio Tinto Canadian Exploration Limited (Riocanex), la section de reconnaissance de Rio Algom, avec des raisons régionales géologiques, pour faire une expertise alliée électro-magnétique et magnétique.

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Ceci a été mis en action en mars et avril. On a découvert plusieurs anomalies dont deux étaient d'un intérêt tout spécial.

Un travail complémentaire géophysique a été commencé en mai, 1959. La région est, pour la plus grande partie, du terrain de couverture et le centrage des trous de forage au diamant du premier programme de forage, commencé en août, 1959, était appuyé fortement sur une interprétation géophysicale.

Pendant cette même période, on avait entrepris un programme de lotisage de grande profondeur pour déterminer si la distribution métallique d'ion, près de la surface de roche de fond, pourrait servir à indiquer une distribution de métal dans les zones de sulphure.

En août 1960, les opérations ont été suspendues. Les résultats étaient peu concluants après le forage de 28 trous s'élevant à un total de 15.498 pieds de profondeur. Quelques trous entrecoupaient de bonnes largeurs de minéralisation de cuivre avec teneur de minerai, d'autres, de la minéralisation d'une teneur de sous-minerai de zinc. Des trous intervenants ont manqué, à plusieurs occasions, de démontrer la continuation de ces zones.

Après une étude plus approfondie et un travail supplémentaire géophysique et géochimique, la Société s'est résolue, en février, 1962, à un programme de forage de profondeur au diamant, à jour. Comme le forage a progressé, les grandes lignes d'un gisement de minerai se sont fait voir. En novembre, on a décidé de forer un puits jusqu'à la profondeur de 1.600 pieds. A la fin de décembre, 1962, on avait atteint un nombre suffisant de croisements pour garantir la recommandation à l'effet de continuer l'expertise d'un gite minéral sous terre.

Il n'y avait, ni tranches de couche de minerai ni mineralisation. Les travaux de recherche sous terre ont indiqué que les roches d'hôte sont composées d'une rencontre est-ouest avec un fort pendage vers le sud, de rhyolites, de rhyolites tuffeux et d'agglomérés. Le minéralisation du sulphure se présente le long du contact entre du rhyolite très silicieux sur le mur de la faille et moins de rhyolite tuffeux et d'agglomérés au toit de faille.

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Il y avait un développement intense de talc et de chlorite à la proximité des sulfures.

Le minerai se présente comme série complexe, riche en chalcopyrite ou en sphalerite ou en mélange chalcophyrite-sphalerite dans une largeur de zone assez minéralisée dans laquelle le sulphure minéral prévalait est le pyrrhotite avec des montants mineurs et variables de pyrite.

Développement minier

Comme suite à la décision prise la mi-été 1964 de faire produire la mine, on a entamé le creusement du puits jusqu'à la profondeur de 1.850 pieds et ce projet a été terminé à la fin d'octobre de la même année. Pendant la période de pre-production et de l'abatage en gradins, l'usine de forage, déjà en fonction, avait atteint la capacité d'extraction d'environ 400 tonnes par jour.

Au moment du lancement, quelques 22.000 pieds de travail diagonal et 9.000 pieds de montage avaient été terminés ainsi qu'un total de forage au diamant sous terre de 75.000 pieds. Le travail d'exploitation et de traçage était déjà avancé aux niveaux de 1.000 et de 1.500 pieds.

Le minerai de traçage que l'on trouve en ce moment est dans la minéralisation de cuivre et de zinc, et ensemble et séparément, dans une série de gisements qui se trouvent dans une zone d'environ 1.500 pieds de long et d'une grosseur de 300 pieds. La zone a une rencontre est-ouest et un pendage en direction sud. On peut trouver trois formations différentes de roche dans les gisements de structure irrégulière qui demandent trois méthodes différentes pour leur exploitation.

Les gisements individuels de minerai peuvent être (1) des sulfures massifs, riches en zinc (sphalerite et pyrrhorite) (2) du chalcopyrite en chlorite contenant aussi du pyrrhorite (3) du chalcopyrite et du sphalerite en pierre ollaire-chlorite.

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Les sulphures massifs, riches en zinc, sont assez gros (jusqu'à 100 pieds) pour permettre l'exploitation en gradins par explosion à trou ouvert. Les murs de détente de la deuxième catégorie sont des sulfures assez compétents ou du chlorite massif et peuvent être exploités par retrait. Les roches d'hôte et le minerai lui-même, dans les zones de pierre ollaire-chlorite, sont incompétents et seront coupés et exploités sur place à l'aide de refus de broyage amendés pour ce faire, peut-être avec une adaptation spéciale pour les faire conformes aux conditions particulières. La largeur du gisement des minerais des deux autres catégories varie de 6 pieds à 15 pieds avec une moyenne de 10 pieds.

Le caractère général de la roche d'hôte qui entoure les gisements de minerai fait admettre que le trou d'explosion et l'exploitation à gradins demande à ce qu'ils soient exploités en charge après l'étirage final. Les apparences laissent entrevoir que, dans des conditions normales d'exploitation normale, la moitié du minerai sera obtenue de l'exploitation à gradins et en charge.

Le minerai exploité en gradins est chargé par voie de couloirs ou de machines à chute dans des camions-bascule à remorque latérale de 2½ tonnes et herché à l'aide de locomotives à batterie au passage du minerai. Un concasseur sous-terrain de 36" à 48" réduit le matériel à moins de 5" avant d'être monté en wagonnets à vidage de fond à une trémie à la surface de 600 tonnes.

Traitement

L'atelier de traitement est construit à pouvoir recevoir 1.500 tonnes par jour. La capacité supplémentaire de 700 tonnes par jour en plus pourra être obtenue plus tard dans l'année pour pouvoir exploiter le minerai de la propriété avoisinante Joutel Copper Mines. Le minerai Joutel sera traité sur commande suivant un accord signé entre les deux sociétés.

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Un grand nombre de machinerie de l'usine a été transporté d'une des exploitations d'uranium d'Elliot Lake. L'usine est disposée comme concentrateur normal de flottation différentielle de cuivre-zinc. Une paillette différentielle de talc, présente en quantité importante, est faite avant la séparation du métal si l'on le considère nécessaire.

Il y a aussi, dans l'usine de traitement l'équipement nécessaire à la récupération de la charge hydraulique. Vu que la propriété est située dans une région de bas-relief, une section à rebuts a été développée pour les résidus.

Exploitation de l'atelier

Durant les premiers jours du développement, il y avait bien des problèmes tirant vers la construction et l'entretien. Au début, il n'y avait pas de routes d'accès. La machinerie lourde et de grand volume et tout autre matériel à l'exception des vivres, devaient être emportés pendant les trois mois de gel. Les camions traversaient une clairière par bravache dans la forêt sur la terre gelée et à travers un pont de glace sur la rivière Harricana. L'emplacement de la mine se trouve à la distance de 4½ milles à l'ouest de la rivière Harricana, à environ 13 milles de la route d'accès.

La section de l'atelier de la mine a environ 30 pieds de terrain de couverture molle et la construction entière devait être appuyée de piliers en acier et en bois.

Vers l'été de 1964, la route permanente d'accès a été construite par la province et une balandre, capable de transporter des camions avec pleine charge a été mise en service sur la rivière. En janvier, 1966, la construction du pont sur la rivière Harricana a été terminée.

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Développement de la communauté

En pleine production la mine aura un personnel de 350. En ce moment, il y a 240 employés, 50 personnel aux appointements et 210 personnes payées à l'heure. Cinquante bungalows ont été construits et quarante maisons en rangée sont en construction. Une école temporaire a été établie par la Société et la province de Québec est en train de faire des plans pour la construction d'une école permanente. Il y a des dortoirs pour les célibataires. On fait aussi des plans pour l'établissement d'un parc pour voitures remorque.

Service commercial

Depuis la mi-janvier, les expéditions de cuivre de Poirier ont été en transit régulier aux fonderies de Noranda, Québec. La production de zinc est expédiée à Metallgesellschaft de l'Allemagne.Occidentale par voie de Québec-ville. Les arrangements pour ce service commercial sont pour une période de trois ans soit: le concentré de cuivre à Noranda Mines et le zinc à Metallgesellschaft.

Placement financier

Le placement de Rio Algom, pour l'exploitation de Mines de Poirier, varie entre 13 et 14 millions de dollars.

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Avril, 1966

RIO ALGOM MINES LIMITED

Rio Algom Mines Limited est un complexe majeur minier et industriel et forme une partie du groupe Rio Tinto-Zinc, ayant son siège social à Londres, Angleterre, et des intérêts commerciaux partout dans le Commonwealth du monde occidental. Rio Algom a été constitué en 1960 par le fusionnement de quatre sociétés du groupe Rio Tinto-Zinc, ayant des propriétés productrices d'uranium dans la région d'Elliot Lake. Primitivement un producteur d'uranium avec d'excellentes réserves de minerai, la société a grandi dans une entreprise avec de multiples intérêts et miniers et industriels.

Du côté minier, la société a diversifié considérablement et a des intérêts personnels et impersonnels dans des mines de cuivre, d'or et de zinc au Canada. La mine principale d'uranium, Nordic, a des contrats à long terme avec le Gouvernement du Canada qui imposent des livraisons importantes jusqu'en 1971 et, en plus, Nordic a signé, l'année passée, un contrat supplémentaire avec le Gouvernement canadien suivant lequel Rio Algom a la faculté de fournir U_3O_8 au tas de provision pendant les cinq années à venir. La mine Nordic est la seule des sept mines primordiales de la société à Elliot Lake qui produit de l'uranium en ce moment. D'autres mines qui ont été fermées suivant les termes des plans de concessions, sont tenues sur une base d'entretien et de surveillance.

Vers la fin de l'année passée, deux nouvelles mines productrices de métal commun ont été mises en production, la première étant Mines de Poirier, société dont Rio Algom est le propriétaire unique, produisant du cuivre et du zinc, et Anglo-Rouyn Mines Limited, une propriété au Lac La Ronge, à la Saskachewan dans laquelle Rio Algom est intéressée pour 58 pour cent.

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Rio Tinto Nuclear Products Limited, anciennement Rio Tinto Dow, est une autre société dont Rio Algom est le propriétaire unique et qui produit à Elliot Lake des jusées de rebut d'uranium, du thorium et des terres rares tel que l'yttrium. Cette société a en construction une usine d'affinage de 150 tonnes par an à être achevée en mai 1966, et servant, au début, aux recherches et au développement. Cette affinerie d'uranium sera la première au Canada dont le propriétaire n'est pas le Gouvernement et qui permettra à Rio Algom de profiter de plus en plus des avantages de l'importance toujours croissante du marché de l'énergie nucléaire.

En 1963, faisant partie du programme de diversification, Rio Algom a acheté Atlas Steels Limited, le plus grand producteur et distributeur du Canada d'acier de qualité particulière. La section de l'acier a deux usines - une à Welland, Ontario - l'autre à Tracy, Quebec. Celle-ci fonctionne pour la plus grande partie avec de la machinerie de technique avancée. La distribution des produits en acier de qualité particulière et d'autres alliages se fait par Atlas Alloys, une section de la société.

Rio Tinto Canadian Exploration Limited, la section des travaux de recherche, exécute des recherches actives pour les minerais en autant au Canada que dans d'autres territoires de l'hémisphère occidental.

Rio Algom a aussi une part d'intérêt dans British Newfoundland Corporation Limited et Churchill Falls (Labrador) Limited et fournit un service de gestion à ces organisations.

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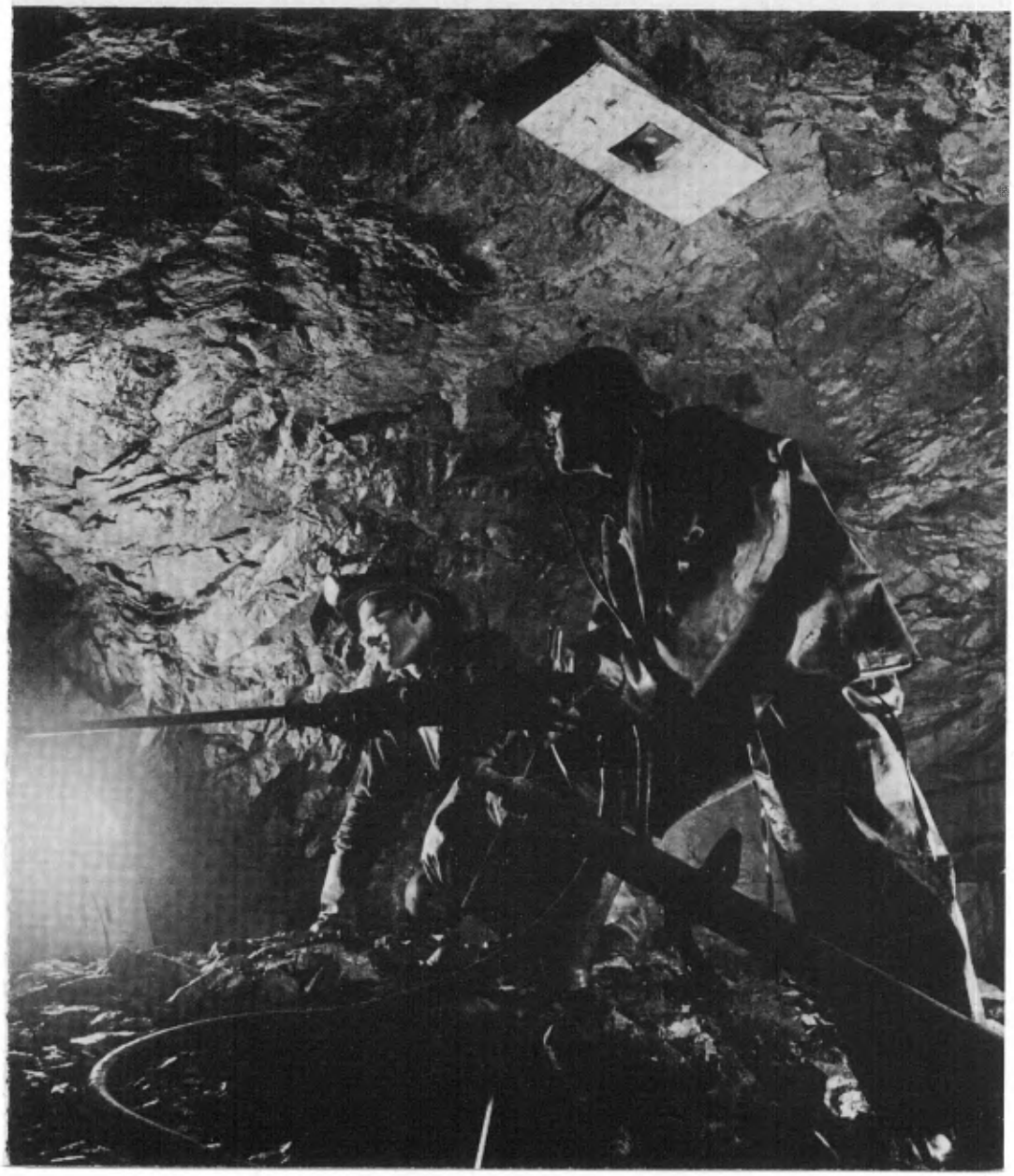
avril, 1966

RÉSUMÉ SOMMAIRE

Mines de Poirier, Inc.

A CAPSULE SUMMARY



Événements dans le développement Poirier

Mars, avril — 1959	Levé aérophotogrammétrique d'ensemble électro-magnétique et magnétique — Découverte de deux anomalies intéressantes.
Mai — '59	Poursuite géophysique du sol.
Août — '59	Commencement du programme d'exploitation à perforatrice diamantée.
Août — '60	Travaux suspendus après 28 trous d'un total de 15.498 pieds de forage — résultats inconcluants.
Févr. — '62	Ré-ouverture du programme de forage profond à perforatrice diamantée, à jour.
Nov. — '62	Commencement du forage d'un puits jusqu'à 1.600 pieds — le développement sous terre continue.
Mi-été — '64	Décision de la mise en rapport de Poirier. Commencement du forage du puits.
Sept. — '64	Construction par la Province d'un chemin d'accès de la route à la rivière.
Oct. — '64	Achèvement de l'approfondissement du puits à 1.850 pieds.
Janv. — '65	La construction de l'usine commence.
Mai — '65	Installation de la force hydraulique.
Sept. — '65	Installation des cinq premières familles dans des bungalows du développement urbain.
Déc. — '65	Les réparations aux usines commencent.
Janv. — '66	Ouverture à la circulation du pont permanent sur la rivière Harricana joignant le développement urbain et les ateliers avec la route.
Mars 15 — '66	L'usine répond à la quote-part du programme, soit 1.500 tonnes de minerai par jour.
Avril 18 — '66	Ouverture officielle.

Placement de capital: $13½ millions
Personnel: 260

Direction de Poirier

Président	W. P. Arnold
Vice-Président	R. D. Lord
Secrétaire	J. S. Turnbull
Trésorier	A. C. Turner
Secrétaire-adjoint	G. R. Devey
Secrétaire-adjoint	G. W. Murchison
Secrétaire-adjoint	M. A. Gagnon
Trésorier-adjoint	D. G. Scott

Directeur de mine — R. T. Cook

Conseil d'Administration

W. P. Arnold
G. Baker
L. A.-Lapointe
P. Legrand
R. D. Lord
H. S. Wilson

Mines de I

Un membre du groupe de sociétés Rio Algom-Rio Tinto

Milestones in Poirier's development

Mar., Apr. — 1959	Combined airborne electro-magnetic and magnetic survey — two interesting anomalies detected.
May — '59	Geophysical ground follow-up.
Aug. — '59	Commencement of diamond drilling program.
Aug. — '60	Work suspended after 28 holes totalling 15,498 feet of drilling — inconclusive results.
Feb. — '62	Deep diamond drilling program from surface re-initiated.
Nov. — '62	Shaft sinking to 1,600 feet started — underground development continues.
Mid-summer — '64	Decision made to bring Poirier into production. Shaft deepening starts.
Sept. — '64	Province builds access road from highway to river.
Oct. — '64	Shaft deepening to 1,850 feet completed.
Jan. — '65	Plant construction begins.
May — '65	Hydro power installed.
Sept. — '65	First five families move into townsite bungalows.
Dec. — '65	Mill begins tune-up.
Jan. — '66	Permanent bridge over Harricana river opens for traffic connecting townsite and mine plant with highway.
Mar. 15 — '66	Mill meets planned quota of 1,500 tons of ore per day.
Apr. 18 — '66	Official opening.

Capital investment: $13½ millions

Personnel: 260

Poirier Officers

President	W. P. Arnold
Vice-President	R. D. Lord
Secretary	J. S. Turnbull
Treasurer	A. C. Turner
Assistant Secretary	G. R. Devey
Assistant Secretary	G. W. Murchison
Assistant Secretary	M. A. Gagnon
Assistant Treasurer	D. G. Scott

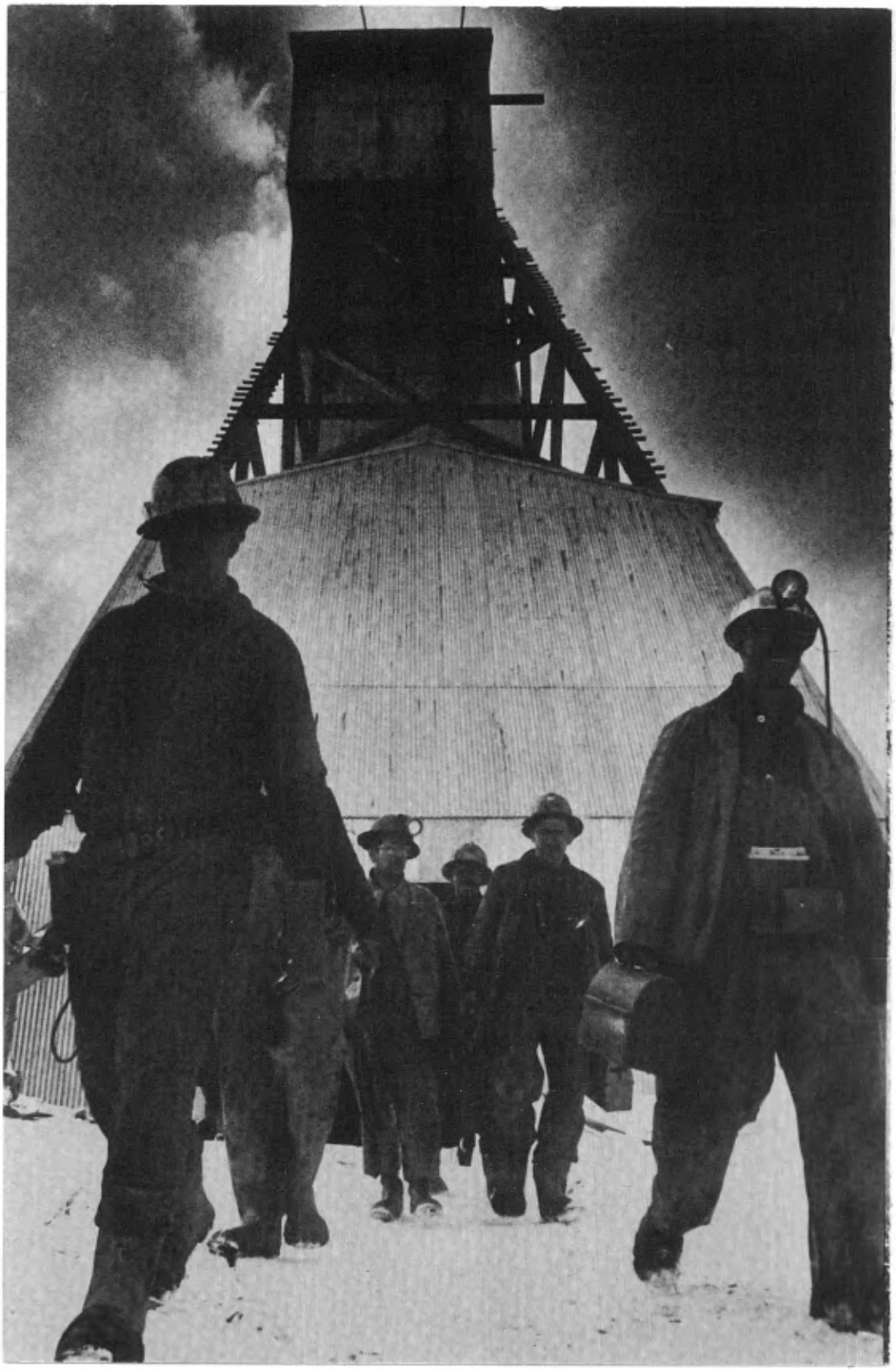
Mine Manager — R. T. Cook

Directors

W. P. Arnold
G. Baker
L. A.-Lapointe
P. Legrand
R. D. Lord
H. S. Wilson

Poirier, Inc.

A member of the Rio Algom-Rio Tinto Group of Companies



Rio Algom

MINES LIMITED

Annual Report 1965

Rio Algom Mines Limited

Highlights of the Year's Consolidated Operations

	This Year	*Last Year*
Sales	$126,601,529	*$120,629,113*
Net Earnings	8,205,882	*7,663,903*
Earnings:		
Per Dollar of Sales	6.5%	*6.3%*
Per Share of Common Stock	77¢	*72¢*
Dividends Paid per Share	40¢	*40¢*
Current Assets	79,395,326	*81,932,823*
Current Liabilities	34,535,547	*32,532,721*
Working Capital	44,859,779	*49,400,102*
Shareholders' Equity	82,159,763	*78,198,734*
Total Shares Outstanding	10,612,132	*10,612,132*
Equity per Share of Common Stock	7.74	*7.37*
Production:		
Uranium Oxide (Pounds)	2,717,198	*4,123,865*
Copper in Concentrate (Pounds)	8,248,656	*8,609,230*
Specialty Steel (Tons)	149,937	*148,372*
Number of Employees at December 31	4,740	*4,435*

Rio Algom Mines Limited

Officers

Chairman and President	Val Duncan
First Vice-President	W. B. Malone
Vice-President and General Manager of Operations, Mining Division	W. P. Arnold
Vice-President, Finance; and Treasurer	H. S. Wilson
Vice-President, Administration; and Secretary	G. Baker
Vice-President, Planning and Development	G. R. Albino

Directors

W. A. Arbuckle, Montreal

Henry Borden, CMG, QC, Toronto

Val Duncan, OBE, London, England

J. G. Edison, QC, Toronto

F. G. Gardiner, QC, Toronto

Sam Harris, New York, U.S.A.

Hon. Salter A. Hayden, QC, Toronto

L. A. Lapointe, QC, Montreal

B. R. MacKenzie, QC, Toronto

W. B. Malone, Toronto

Leo Model, New York, U.S.A.

F. A. Petito, New York, U.S.A.

J. B. Ridley, Toronto

J. Herbert Smith, Toronto

Sir Mark Turner, London, England

R. W. Wright, London, England

The Annual Meeting

The Company will hold its Annual Meeting and a General Meeting on Monday, March 14, 1966 at 10:30 a.m. Eastern Standard Time, in the Canadian Court, King Edward Sheraton Hotel, 37 King Street East, Toronto, Ontario, Canada.

Chairman's Letter to the Shareholders

The year 1965 brought considerable changes to your Company. During the first half of the year Mr. George De Young, who was the former President of Atlas Steels Limited, resigned as President and Director of Rio Algom. His duties as President were assumed by the Chairman, the Honourable Robert Winters.

Mr. Winters, as you know, re-entered public life during the last General Election in November and shortly thereafter was appointed Minister of Trade and Commerce. Mr. Winters, who guided the destinies of your Company for more than 8 years, performed most valuable services for the Company and we owe a great debt of gratitude to him for his achievements during his term of office.

Shareholders will be aware that the majority shareholder in your Company is The Rio Tinto-Zinc Corporation of London, England. When it became clear that Mr. Winters had agreed to offer himself for election as a Member of Parliament, it was felt that the best interests of the Company would be served by a temporary arrangement whereby I, as Chief Executive of The Rio Tinto-Zinc Corporation, would assume the appointment of Chairman and Chief Executive of Rio Algom Mines Limited, and also serve as President in the interim.

It is, of course, the intention that in due course your Board will elect a new President and Chief Executive Officer.

I should like to say that it is a privilege to work even more closely with my colleagues in Canada than I had previously done as a member of the Board.

The delays and difficulties experienced in bringing into production on a profitable basis the new plant at Tracy, Quebec were greater than expected. This modern stainless steel plant incorporates complex machinery of advanced technique with the object of making the most economic use of manpower. No pioneering of this kind takes place without difficulties, but I feel the final solution is in sight and this

will prove to be a plant capable of producing stainless steel sheet of the finest quality and at low cost. Meanwhile, our production requirements are being met by subcontracting the hot rolling to an outside company.

The Welland plant has been working at full capacity, producing record output and record profits, and these will be enhanced as a profitable operation is achieved at Tracy. There is no better team in the specialty steel business anywhere and I am confident that this will be accomplished.

The Mining Division had a successful year. It is not often in Canada that a mining company brings into production two new mines within the space of a month and this has been achieved by the Mining Division in the start-up recently of the base metal mines of Poirier in Quebec, and of Anglo-Rouyn in Saskatchewan. Both these mines represent an important diversification from our principal interests in the field of uranium. I wish to pay tribute to the men in the Mining Division, who attained such excellent results in 1965.

Your Company is providing management services for Brinco, the principal assets of which are the Churchill Falls and the Churchill River in Labrador. The harnessing of Churchill Falls for hydro-electric purposes represents one of the largest undertakings in North America and this project has been the subject of prolonged negotiations initiated and carried to an advanced stage by Mr. Winters. Negotiations have not yet been concluded but we believe that such a great natural resource in Canada cannot be left idle and are hopeful that it will be possible to start construction this year.

On the retirement of Mr. Winters as Chairman and Chief Executive of Brinco, Mr. Henry Borden, Q.C., a distinguished Director of Rio Algom, was elected Chairman to take Mr. Winters' place in Brinco.

The Directors' Report and the Report on Operations deal in more detail with the affairs of your Company. I look to the future with confidence.

VAL DUNCAN
Chairman and President

Toronto, Ontario.
February 18, 1966.

Historic Moments at Rio Algom . . .

Mr. Val Duncan and the Hon. Robert H. Winters meet the press to announce Mr. Winters' resignation preparatory to his assumption of the Federal Trade and Commerce portfolio and Mr. Duncan's election as Chairman and Chief Executive Officer.

Mr. W. B. Malone, First Vice-President, presents universal clock to Mr. Winters on behalf of the Rio Algom Board of Directors. Upon the spin of a dial, the clock indicates the time at any given point in the world.

Following the press conference, Mr. Duncan presented Mr. and Mrs. Winters with a Georgian tea set on behalf of The Rio Tinto-Zinc Corporation Board of Directors. The presentation took place at the Toronto head office employees' Christmas reception. Mr. Winters is seen addressing the gathering.

Directors' Report to the Shareholders

On behalf of the Board of Directors, I hereby present the sixth Annual Report of the Company for the year ended December 31, 1965. This report includes the audited, consolidated financial statements of the Company and the Report on Operations for the year. These should be read in conjunction with the Chairman's letter which precedes this report.

The Chairman has referred to the difficulties experienced in bringing into production the new stainless steel plant at Tracy, Quebec. These problems at the Tracy plant obviously adversely affected the profitability of the Company in spite of the good results achieved at the Welland plant and in the Mining Division. Your Board is appreciative of the dedication of the team of Atlas men who have worked such long hours to solve these problems.

The Mining Division has had a good year and the Nordic mine in Elliot Lake continues to show satisfactorily low costs, notwithstanding wage rate increases.

Poirier and Anglo-Rouyn were brought into production around the end of the year and both mines should be in full production in the near future.

Your Company remains active in the field of exploration from coast to coast. In particular the low-grade copper deposit of Lornex in British Columbia, is showing some initial promise though it is too early to say whether this will constitute a mine.

As regards uranium, your Company has a master contract which runs until the beginning of the next decade. So far as commercial sales are concerned, the last few years have been characterized by marginal sales at low prices. Last year, however, for the first time in some years, a slight improvement in these prices was apparent. This was probably occasioned by a growing realization on the part of a number of countries whose future energy resources may depend primarily on uranium that they should soon begin to assure supplies for their future nuclear power programmes.

The currently proven free world reserves of uranium are considered to be inadequate to fulfil the forecasted requirements for the 1970's and 1980's. Notwithstanding the large reserves contained in Rio Algom's Elliot Lake properties,

your Company is continuing an active long-range exploration programme to add to these reserves.

The broadly based activities of your Company require the raising of additional capital and your Directors have decided to request the approval of shareholders to an increase in capital through the creation of preference shares.

Reference has already been made in the Chairman's letter to the sincere regret with which Mr. Winters' resignation was received by the Board of Directors and his colleagues in the Company. Congratulations and good wishes go with him in his new and responsible appointment.

Following the resignation of Mr. De Young, Mr. W. A. Thomas as senior Vice-President of the Steel Division assumed responsibility for the affairs of the Division, with Mr. A. V. Orr as divisional Vice-President Marketing and, later, Mr. K. Dunn as divisional Vice-President and Controller.

In December, 1965, Mr. W. B. Malone, the senior Vice-President of the Company, was elected First Vice-President.

Mr. G. R. Albino, who joined the Company in 1964, was appointed Vice-President Planning and Development in October, 1965.

The administrative changes which took place during the year made heavy demands upon all levels of management. Your Directors wish to express to all officers, staff and employees of the Company and its associates their sincere appreciation of the good work they have done.

On behalf of the Board
VAL DUNCAN
Chairman and President

Toronto, February 18, 1966.

Underground Diamond Drilling

Auditors' Report

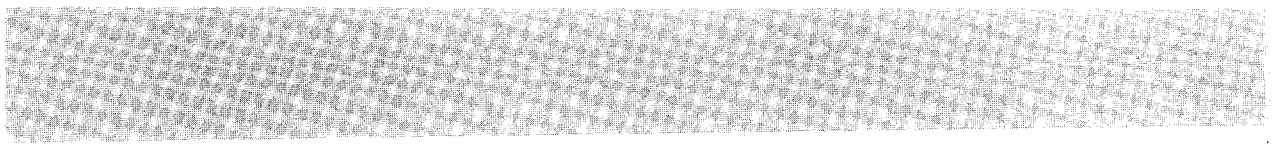
To the Shareholders of Rio Algom Mines Limited:

We have examined the consolidated balance sheet of Rio Algom Mines Limited as at December 31, 1965 and the consolidated statements of earnings, retained earnings and source and use of funds for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, the accompanying financial statements present fairly the consolidated financial position of the companies as at December 31, 1965 and the consolidated results of their operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada
February 18, 1966

COOPERS & LYBRAND
Chartered Accountants



Rio Algom Mines Limited

(Incorporated under the laws of Ontario)

Consolidated Balance Sheet as at December 31, 1965

(with comparative figures for 1964)

ASSETS

	1965	*1964*
CURRENT:		
Cash	$ 1,677,891	*$ 1,574,535*
Short term notes, at cost	2,554,654	*11,994,823*
Marketable securities, at cost *(note 4)* (market value, 1965—$4,109,000; 1964—$5,441,000)	3,640,465	*5,364,890*
Accounts and settlements receivable	23,312,825	*21,027,104*
Due from affiliated and associated companies	252,703	*511,645*
Inventories *(note 2)*	44,260,955	*34,633,991*
Concentrates awaiting shipment, at selling price	3,695,833	*6,825,835*
	79,395,326	*81,932,823*
SHARES IN AND ADVANCES to unconsolidated subsidiary and associated companies, at cost less provision for losses *(note 4):*		
Unconsolidated subsidiaries	5,098,161	*2,605,268*
Associated companies	3,699,828	*3,881,994*
	8,797,989	*6,487,262*
FIXED ASSETS, at cost *(notes 3 and 8):*		
Buildings, machinery and equipment and construction in progress	212,868,507	*206,290,974*
Less accumulated depreciation	146,719,586	*140,045,874*
	66,148,921	*66,245,100*
Land	1,431,653	*1,450,600*
Mining properties (after accumulated amortization, 1965—$4,620,232; 1964—$4,176,130)	1,140,168	*1,584,270*
	68,720,742	*69,279,970*
OTHER ASSETS AND DEFERRED EXPENDITURES:		
Mine supplies, at cost less provision for loss on disposal of surplus supplies	1,810,031	*1,965,668*
Prepaid expenses	2,015,863	*1,378,402*
Preproduction and development expenditure, right to deliver under sales contract and housing costs, at cost less amortization *(notes 1 and 3)*	8,649,225	*10,779,610*
Development projects, at cost less credits *(note 4)*	299,966	*2,242,637*
Start up expenses of the Quebec plant, at cost *(note 3)*	1,074,866	*1,074,866*
Discount and financing expenses, at cost less amortization *(note 3)*	2,761,876	*2,924,626*
Excess of acquisition cost over adjusted book value of Atlas Steels assets, less amortization *(note 3)*	17,794,591	*18,841,691*
	34,406,418	*39,207,500*
	$191,320,475	*$196,907,555*

LIABILITIES AND SHAREHOLDERS' EQUITY

	1965	*1964*
CURRENT:		
Bank loans	$ 5,245,246	*$ 5,500,817*
Accounts payable and accrued liabilities	16,135,498	*15,654,407*
Provision for income taxes including Ontario mining taxes	1,782,271	*1,486,369*
Advances on uranium concentrates repayable during 1966	8,872,532	*7,391,128*
Serial Debenture maturities and sinking fund payment due October 1, 1966	2,500,000	*2,500,000*
	34,535,547	*32,532,721*
ACCUMULATED TAX REDUCTION APPLICABLE TO FUTURE YEARS	—	*83,000*
ADVANCES ON FUTURE DELIVERIES OF URANIUM CONCENTRATES *(note 5)*	38,235,032	*45,626,160*
Less portion included in current liabilities	8,872,532	*7,391,128*
	29,362,500	*38,235,032*
LONG TERM DEBT *(note 6):*		
5½% Serial Debentures Series A, $2,000,000 maturing annually on October 1, 1966 to 1968 inclusive	6,000,000	*8,000,000*
5¾% Sinking Fund Debentures Series A, maturing on April 1, 1983	41,500,000	*42,000,000*
	47,500,000	*50,000,000*
Less portion included in current liabilities	2,500,000	*2,500,000*
	45,000,000	*47,500,000*
MINORITY SHAREHOLDERS' INTERESTS IN SUBSIDIARY COMPANIES	262,665	*358,068*
SHAREHOLDERS' EQUITY *(notes 6 and 7):*		
Capital stock—		
Authorized: 12,000,000 shares without par value		
Issued: 10,612,132 shares	26,280,276	*26,280,276*
Contributed surplus	19,381,472	*19,381,472*
Retained earnings appropriated for development projects	—	*5,000,000*
Retained earnings	36,498,015	*27,536,986*
	82,159,763	*78,198,734*

Approved on behalf of the Board:

W. B. MALONE, Director

HENRY BORDEN, Director

$191,320,475	*$196,907,555*

The accompanying notes are an integral part of this statement and should be read in conjunction therewith.

Consolidated Statement of Earnings

YEAR ENDED DECEMBER 31, 1965

(with comparative figures for 1964)

	1965	*1964*
REVENUE:		
Gross revenue from mine production and sales of steel products	$126,601,529	*$120,629,113*
Investment and other income	683,379	*962,722*
	127,284,908	*121,591,835*
COSTS:		
Cost of production, selling, general and administrative expenses (including directors' fees, 1965—$33,025; 1964—$34,630)	101,471,682	*97,171,486*
Interest on long term debt and amortization of discount and financing expenses *(note 3)*	3,208,991	*1,408,411*
Provision for income taxes including Ontario mining taxes *(note 9)*	1,640,112	*1,842,226*
Depreciation and amortization *(notes 1 and 3):*		
Fixed assets and mining properties	7,344,598	*8,137,117*
Preproduction and other assets	3,155,359	*3,811,344*
Excess of cost over adjusted book value of assets acquired	1,047,100	*1,047,100*
Exploration expenditures	524,184	*546,317*
	118,392,026	*113,964,001*
EARNINGS BEFORE ADJUSTMENT FOR MINORITY INTERESTS IN SUBSIDIARY COMPANIES	8,892,882	*7,627,834*
Minority interests in losses of subsidiaries	—	*36,069*
NET EARNINGS FROM OPERATIONS	8,892,882	*7,663,903*
Deduct—special non-recurring items:		
Provision for losses of Atlas Steels (Italy) S.p.A. (including estimated income taxes attributable to prior years of $106,000)	433,000	—
Provision for loss on disposal of consumer products operations	254,000	—
	687,000	—
NET EARNINGS FOR THE YEAR	$ 8,205,882	*$ 7,663,903*

The accompanying notes are an integral part of this statement and should be read in conjunction therewith.

Consolidated Statement of Retained Earnings

YEAR ENDED DECEMBER 31, 1965

(with comparative figures for 1964)

	1965	*1964*
BALANCE, beginning of the year	$27,536,986	*$25,984,586*
ADD:		
Net earnings for the year	8,205,882	*7,663,903*
Appropriation for development projects in prior year, no longer required	5,000,000	—
	40,742,868	*33,648,489*
DEDUCT:		
Dividends paid	4,244,853	*4,244,853*
Steel scrap inventory shortage of prior years written off	—	*1,866,650*
	4,244,853	*6,111,503*
BALANCE, end of the year	$36,498,015	*$27,536,986*

Consolidated Statement of Source and Use of Funds

YEAR ENDED DECEMBER 31, 1965

(with comparative figures for 1964)

FUNDS WERE OBTAINED FROM:	1965	*1964*
Operations—		
Net earnings for the year	$ 8,205,882	*$ 7,663,903*
Add depreciation and amortization and other charges (net) to operations which did not require a cash outlay during the year	12,303,522	*13,059,510*
	20,509,404	*20,723,413*
Advances on future deliveries of uranium concentrates	—	*9,766,310*
Decrease in development projects (net)	1,343,433	*3,868,578*
Decrease in mine supplies and prepaid expenses	56,212	*431,317*
	21,909,049	*34,789,618*
FUNDS WERE USED FOR:		
Additions to fixed assets and preproduction and development (net)	9,510,657	*15,204,846*
Investment in and advances to subsidiary and associated companies	142,490	*3,501,629*
Advances to wholly-owned housing subsidiaries	233,437	—
Dividends paid	4,244,853	*4,244,853*
Advances on uranium concentrates repayable in following year	8,872,532	*7,391,128*
Serial Debenture maturities and sinking fund payment due in following year	2,500,000	*2,500,000*
Purchase of minority shareholders' interests	95,403	*135,698*
Advance to a supplier net of repayments	850,000	*200,000*
Steel scrap inventory shortage of prior years written off	—	*1,866,650*
Start up expenses of the Quebec plant	—	*576,897*
	26,449,372	*35,621,701*
DECREASE in consolidated working capital	$ 4,540,323	*$ 832,083*

The accompanying notes are an integral part of these statements and should be read in conjunction therewith.

Notes to Consolidated Financial Statements

DECEMBER 31, 1965

1. BASIS OF CONSOLIDATION

The consolidated financial statements include the accounts of all subsidiaries except the following:

(i) Housing companies of the Mining Division, which have been excluded because the investment is of doubtful value;

(ii) Partially owned mining companies, none of which have had profits or losses since acquisition, which are not consolidated because of the large interest of minority shareholders; and

(iii) Mines de Poirier Inc., wholly-owned by the company, which as a controlled exploration company has had no profit or loss since its incorporation in 1964 and whose financing arrangements prohibit the payment of dividends until a presently anticipated bank loan of $10,000,000, of which $6,000,000 was outstanding at December 31, 1965, has been fully repaid.

The losses of the housing companies for the year 1965 amounted to $202,745 as compared with the amortization of $219,059 provided in the accounts (see note 3). The accumulated losses of such companies to December 31, 1965 exceed the amounts provided in the accounts by $560,415.

The accounts of consolidated controlled foreign companies are stated in Canadian dollars on the following basis:

Fixed assets and related depreciation at exchange rates in effect at date of acquisition;

Other assets and liabilities at year end rates; and

Revenues and expenses (other than depreciation) at average rates in effect during the year.

2. INVENTORIES

Inventories are valued at the lower of cost and market. Cost is determined generally at average or standard costs which approximate actual. Market for finished steel and steel in process is net realizable value and for raw materials is replacement cost. Intercompany profits have been excluded from inventories.

3. DEPRECIATION AND AMORTIZATION

The following accounting policies are being followed in connection with depreciation and amortization charges of the company:

(i) Fixed and related assets of the Mining Division: The unamortized cost, at July 1, 1960, of plant and equipment, mining properties and preproduction and development expenditure, together with housing costs and the cost of the right to deliver under sales contract purchased since that date and an estimate of capital expenditures to July 30, 1968 are being amortized on the basis of the total poundage of uranium oxide to be delivered under existing Eldorado contracts (excluding the Eldorado-British contract received in 1962 and the Government stockpile contracts received in 1963 and 1965).

In the case of mining assets of $149,572,377 cost is net cost after deducting proceeds of disposal.

(ii) Fixed assets and start up expenses of the Steel Division:

Fixed assets are being depreciated on the straight line method based on engineering estimates of the lives of the assets at the following rates:

Buildings	4% per annum
Plant and equipment	6⅔% per annum

Depreciation has been provided on the new plant and equipment located at Tracy, Quebec from November 1, 1964; no depreciation has been provided on assets under construction.

Start up expenses of the Quebec plant incurred in 1965, relating primarily to the concast machine and hot planetary mill installed during the year, have been charged against 1965 earnings. De-

ferred start up expenses of $1,074,866 incurred prior to December 31, 1964 are to be amortized over three years commencing in 1966.

(iii) Excess of acquisition cost over adjusted book value of Atlas Steels assets:

This is being amortized on a straight line basis over a 20 year period commencing January 1, 1963.

(iv) Discount and financing expenses:
This is being amortized on a straight line basis over the life of the Sinking Fund Debentures of the company, which expire on April 1, 1983.

4. DEVELOPMENT PROJECTS

Development projects, carried at $2,242,637 at December 31, 1964, were reduced during the year by:

(i) An amount of $599,238 relating to the transfer of 2,257,270 shares of Anglo-Rouyn Mines Limited to "shares in and advances to unconsolidated subsidiary companies". The amount transferred is sufficient to value the total investment of 2,796,775 shares of Anglo-Rouyn Mines Limited (indicated market value at December 31, 1965—$6,628,357) at the corresponding equity in the net assets of that company at December 31, 1965.

(ii) The transfer of $1,643,398 to "marketable securities", being the balance of the development projects account assigned as the value of 130,766 shares of Brunswick Mining and Smelting Corporation Limited (indicated market value at December 31, 1965—$2,124,948) in connection with their reclassification as "marketable securities".

At December 31, 1965 the balance in the development projects account includes the cost of 240,000 shares of Lornex Mining Corporation Limited acquired during the year for $212,500 cash (indicated market value at December 31, 1965—$1,014,000) and the cost of 588,371 shares of Pidgeon Molybdenum Mines Limited acquired during the year for $87,465 cash. The account also includes, at a valuation of $1.00, certain mining properties and claims and shares in other mining companies including an additional 363,455 shares of Pidgeon Molybdenum Mines Limited. There is no quoted value for Pidgeon Molybdenum Mines Limited shares.

5. ADVANCES ON FUTURE DELIVERIES OF URANIUM CONCENTRATES

At December 31, 1965 the advance payments received from Eldorado Mining and Refining Limited on the account of future deliveries of uranium concentrates, after repayment of $7,391,128 in 1965, totalled $38,235,032 collaterally secured by $38,280,178 issued and outstanding Non-Interest-Bearing Performance Bonds due March 31, 1974. The Performance Bonds are secured by a charge on the uranium assets of the company located at Elliot Lake and uranium concentrates produced but not delivered. As the deferred poundage is delivered the Bonds are being surrendered to the company. $8,872,532 of these advances is repayable in 1966.

6. LONG TERM DEBT

The company's trust indenture contains certain covenants which limit the payment of dividends as well as the assumption of additional long term liabilities.

7. SHAREHOLDERS' EQUITY

At December 31, 1965 there were common share purchase warrants outstanding entitling the holders of series A warrants to purchase 302,589 shares of the company at $22.23 (U.S.) per share and the holders of series B warrants to purchase 56,700 shares at $22.23 (Can.) per share on or before December 31, 1966.

8. COMMITMENTS AND CONTINGENT LIABILITIES

The following commitments and contingent liabilities were outstanding at December 31, 1965:

(i) Estimated expenditures of approximately $2,000,000 in connection with capital projects;

(ii) The guarantee of $2,000,000 of a bank loan to Mines de Poirier Inc.; and

(iii) An action has been commenced against the company in connection with the alleged infringement of a patent. The company has taken the position that it has good defences to the action.

9. CORPORATION INCOME TAXES

Because of exemptions and deductions permitted for tax purposes, it is estimated that there is no liability for income taxes for the year, except for Ontario mining taxes and income taxes of certain subsidiary companies.

Three Year Consolidated Earnings by Divisions

	1965	*1964*	*1963*
MINING DIVISION			
Gross revenue from mine production	$30,019,342	*$34,358,769*	*$43,165,196*
Costs:			
Costs of production and administration	11,411,031	*14,569,516*	*18,555,232*
Depreciation and amortization	7,664,165	*10,541,559*	*12,928,965*
Provision for Ontario mining taxes	1,126,395	*1,016,553*	*1,349,000*
Exploration expenditures	524,184	*546,317*	*736,700*
Total costs	20,725,775	*26,673,945*	*33,569,897*
Net earnings from operations for the year	9,293,567	*7,684,824*	*9,595,299*
STEEL DIVISION			
Sales of steel products	96,582,187	*86,270,344*	*74,270,752*
Costs:			
Costs of production, selling and administration	87,573,711	*81,037,077*	*68,456,057*
Depreciation	2,835,792	*1,406,902*	*1,011,453*
Interest on long term debt *(note)*	3,046,991	*894,585*	*100,371*
Provision for income taxes	513,717	*825,673*	*771,155*
Amortization of excess of cost over adjusted book value of assets acquired	1,047,100	*1,047,100*	*1,052,995*
Minority interests in losses of subsidiaries	—	*(36,069)*	*(30,192)*
Total costs	95,017,311	*85,175,268*	*71,361,839*
Net earnings from operations for the year	1,564,876	*1,095,076*	*2,908,913*
CORPORATE DIVISION			
Costs:			
Costs of administration	2,486,940	*1,564,893*	*1,085,649*
Interest on long term debt *(note)*	—	*351,826*	*1,052,057*
Amortization of discount and financing expenses	162,000	*162,000*	*152,900*
Total costs	2,648,940	*2,078,719*	*2,290,606*
Less investment income	683,379	*962,722*	*963,795*
Net cost for the year	(1,965,561)	*(1,115,997)*	*(1,326,811)*
Net earnings from operations	8,892,882	*7,663,903*	*11,177,401*
Deduct—special non-recurring items	687,000	—	*980,000*
Net earnings for the year	$ 8,205,882	*$ 7,663,903*	*$10,197,401*

Note: All interest on long term debt has been charged to Steel Division earnings in 1965.
In 1964 and 1963 interest on long term debt has been charged to Steel Division earnings or capitalized as assets under construction to the extent applicable; the balance relating to funds invested or used for general corporate purposes has been charged to the Corporate Division.

Report on Operations

Finance

The consolidated statement of earnings shows that the Company and its consolidated subsidiaries earned a net profit of $8,205,882 in 1965 as compared with $7,663,903 in 1964. These earnings represent 77 cents per share in 1965 and 72 cents per share in 1964. On the page opposite, details of the operations of the Company's major divisions are shown in comparative form for the years 1965, 1964, 1963.

In the Mining Division operating profit in 1965 amounted to $9,293,567 as compared with $7,684,824 in 1964. The increase in operating profit of $1,608,743 is almost entirely attributable to the fact that revenues from both uranium and copper in 1965 were significantly higher than in 1964. The resultant improvement in marginal income more than offsets the adverse effects of the lower production rates.

Operating profit in the Steel Division amounted to $1,564,876 in 1965 and $1,095,076 in 1964. Although the consolidated sales volume of the Division reached an all-time peak of $96,582,187 the generally increased cost of labour and materials, coupled with excessive operating costs resulting from the delayed start-up of certain of the new facilities at Tracy, Quebec, offset, to a great extent, the benefits gained from operating the Welland Plant at full capacity.

In the Corporate Division, administrative changes, coupled with a reduction in the amounts received for management services provided to others, accounted for the net increase in costs of administration of $849,564.

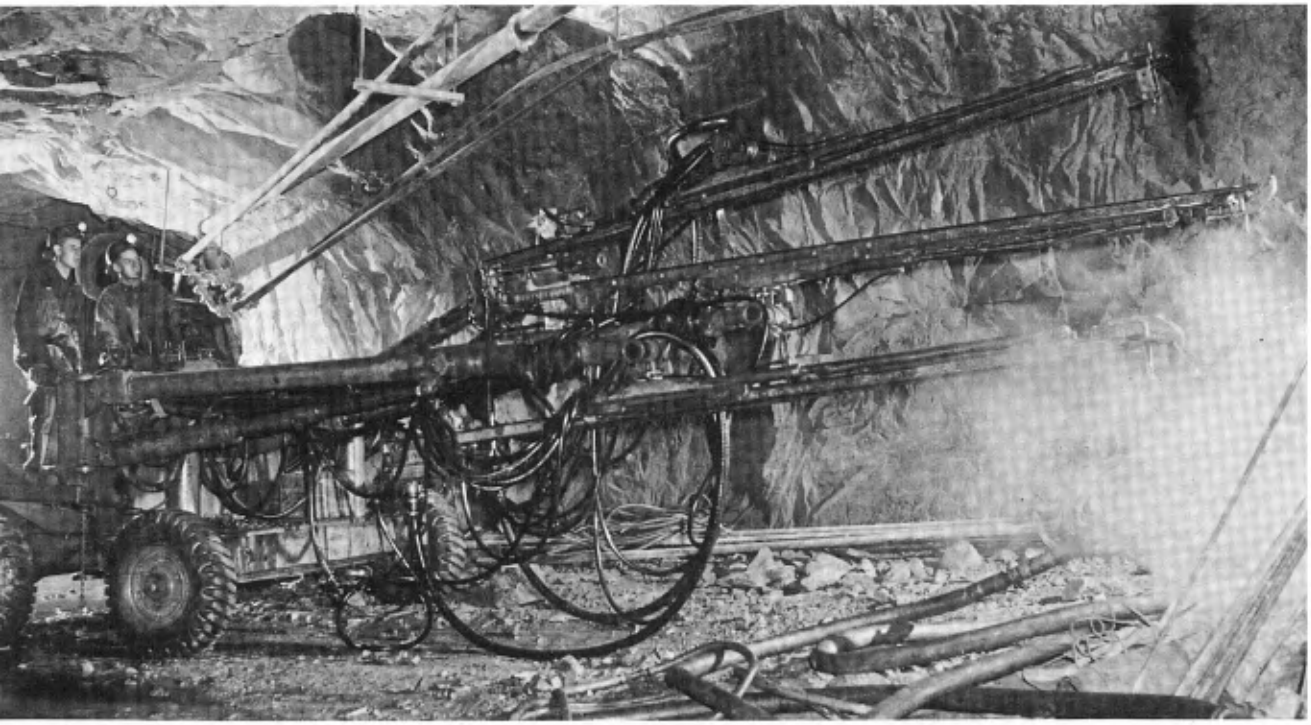
Continued deterioration in the Italian market for our products necessitated a write-down in the value of inventories and other assets held by Atlas Steels (Italy) S.p.A. Also, following a decision to withdraw from direct participation in the production and marketing of consumer products in Canada, the Company's investment has been written down to the realizable values of the assets used in these operations. These non-recurring items which amount to $687,000 are classified as "Special Items" on the Consolidated Statement of Earnings.

The investment of additional funds in receivables, inventories and fixed assets has reduced the Company's liquid reserves to $7,873,010 at December 31, 1965 as compared with $18,934,248 at December 31, 1964 which in turn resulted in the reduction in investment income for 1965 as compared with 1964.

The policy of the Company with regard to depreciation and amortization, which is unchanged from last year, is set forth in Note 3 to the Financial Statements.

During 1965 the Company distributed $4,244,853 in dividends to the shareholders. This amount was made up of two dividends, each of 20 cents per share, paid on June 21 and December 23, 1965.

The increase of $2,310,727 in "Shares in and advances to unconsolidated subsidiaries" is accounted for almost entirely by the transfer of $599,238 from "Development Projects" (as fully described in Note 4 to the Financial Statements) and by additional advances to Anglo-Rouyn Mines Limited and Mines de Poirier Inc. of $744,325 and $1,149,329, respectively.



Mobile jumbo drill, capable of drilling several holes simultaneously, is shown in operation at the Nordic property.

Mining Division

Uranium

Uranium operations and revenues were maintained throughout the year at the rate scheduled in the master contract with Eldorado Mining and Refining Limited. Quantities of U_3O_8 under this contract remaining to be delivered at year-end totalled 13,870,976 pounds.

In July, 1965, the Company entered into an agreement whereby it could deliver at its option to the Canadian Government a total of 3,000,000 pounds of U_3O_8 over a 5-year period at the rate of 600,000 pounds a year. The above quantities would be reduced by any open market sales made during the period. In 1965 275,000 pounds were delivered under this contract.

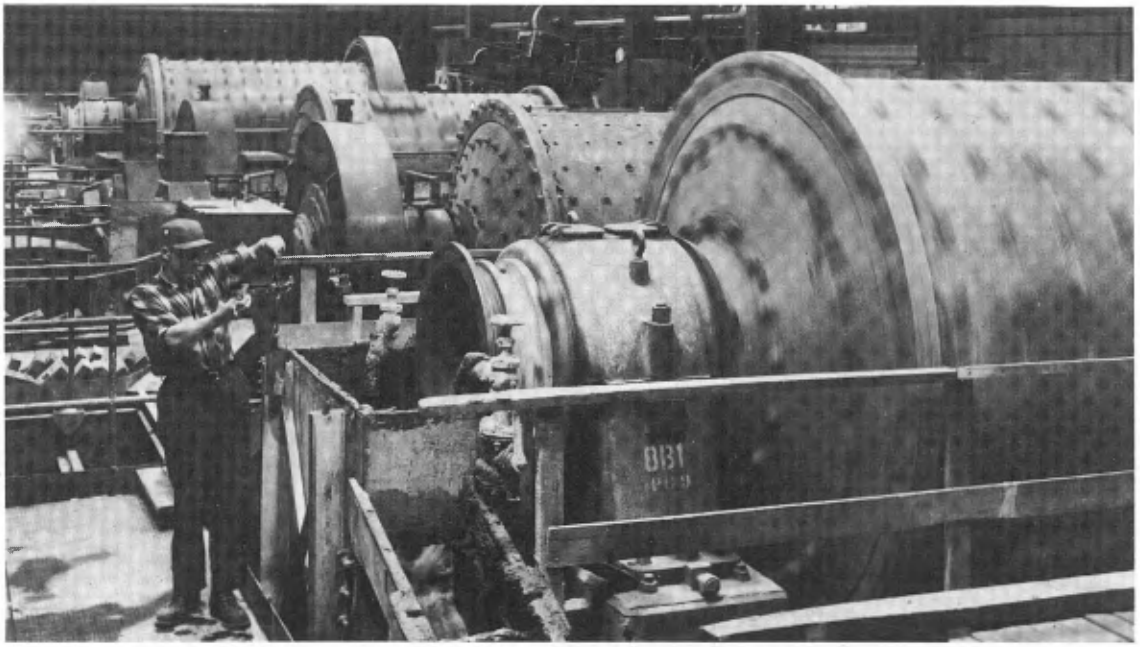
Production

Total production for the year was 2,717,198 pounds of U_3O_8 including 40,000 pounds recovered by treating Nordic mine waters and 80,000 pounds obtained by underground leaching in the Milliken mine.

Nordic continued to be the only uranium mine which your Company had in operation in 1965 and 1,190,000 tons of ore were treated, with an average grade of 2.33 pounds of U_3O_8 per ton and a recovery of 94.8%.

In the third quarter of 1965 work started on dewatering the Quirke mine, a process which will be completed by June, 1966. At that time the mine workings will be on a ready-stand-by basis and the mine and mill could be brought back into production within a relatively short period of time at an estimated cost of $2,500,000.

The experimental underground water-leaching programme at Milliken was terminated in September, 1965 when yields became uneconomic and with the termination of the operation, remaining track and underground electrical equipment and pumps were salvaged from the workings and the property was placed on an idle mine basis.



View of a portion of Nordic mill where uranium-bearing ore is processed to extract uranium oxide (U_3O_8).

Marketing

In 1965, electrical utilities in the United States ordered a record total of 4,820 electrical megawatts of new nuclear capacity, further confirming that nuclear power is now broadly accepted as a safe, reliable and economic means of providing electricity. The United Kingdom announced its "second round" nuclear power station building programme to increase capacity from 5,000 to 8,000 emw by 1975. Similar expansion programmes are planned in other areas, including Continental Europe and Japan. These programmes tend to confirm recent forecasts of demand for uranium starting in a few years' time and particularly during the 1970's.

Your Company is planning on the basis that it will be operating at full capacity from its presently known uranium reserves by about the middle of the next decade. Because it expects demand to continue to grow it is seeking to add to present ore reserves by continuous exploration programmes.

As a result of activities in 1965, your Company is now in a position to produce and sell natural ceramic uranium dioxide powder of nuclear grade as a step in its plan to participate actively in other phases of the nuclear fuel cycle and offer more comprehensive fuel services to buyers, as the market grows. To this end, further studies were initiated during the year, aimed at establishing the feasibility of producing other refined uranium materials.

End of a shift at Poirier mine, in north-west Quebec, one of two new copper mines brought into production by the Company. The other, Anglo-Rouyn, is situated near Lac la Ronge in Saskatchewan.

Copper

Pronto Mine

This mine produced concentrate containing 8,248,656 pounds of payable copper from 248,613 tons of ore milled. Mill grade averaged 1.83% copper and mill recovery was 96.4% with a concentrate grade of 26.4%. No exploratory drilling was carried on during the year while the capital programme of deepening the mine was in progress and ore reserves show a decrease approximately equal to the tonnage milled:

Reserves	Tons	% Copper	Lbs. Copper
Proven Ore . . .	294,401	1.97	11,622,494
Probable Ore based on underground development . .	—	—	—
Probable Ore based on diamond drilling	798,050	1.97	31,478,950
Total Estimated Recoverable Reserves	1,092,451	1.97	43,101,444

Mines de Poirier Inc.

The Poirier mine in northwestern Quebec, in which the Company has a 100% interest, was brought to the plant tune-up stage in December, 1965 and first shipments were made early in 1966. The initial capacity of the concentrator is 1,500 tons of ore per day and a further 700 tons will be added in 1966 to allow for custom milling of ore from the nearby Joutel Copper Mines property. The latter company will provide the funds to finance the increased milling facilities.

Ore reserves at Poirier are calculated to be 3.57 million tons grading 1.74% copper and 3.63% zinc in the claims presently being worked. Further large areas are held by Mines de Poirier in this region at both ends of the present mine property, which have not yet been tested and on which further exploration work will be carried out in due course. Long-term marketing arrangements have been made for the sale of copper concentrate in Canada and zinc to Western Germany.

Access roads and the bridge over the Harricana River are now complete and townsite facilities are well underway, with a number of employees already living there. Capital expenditures from the discovery date of the property and working capital requirements are now expected to total $15,000,000.

Bulldozer tears open overburden on the Lornex property being explored by Rio Tinto Canadian Exploration, Rio Algom's exploration arm.

Anglo-Rouyn Mines Limited

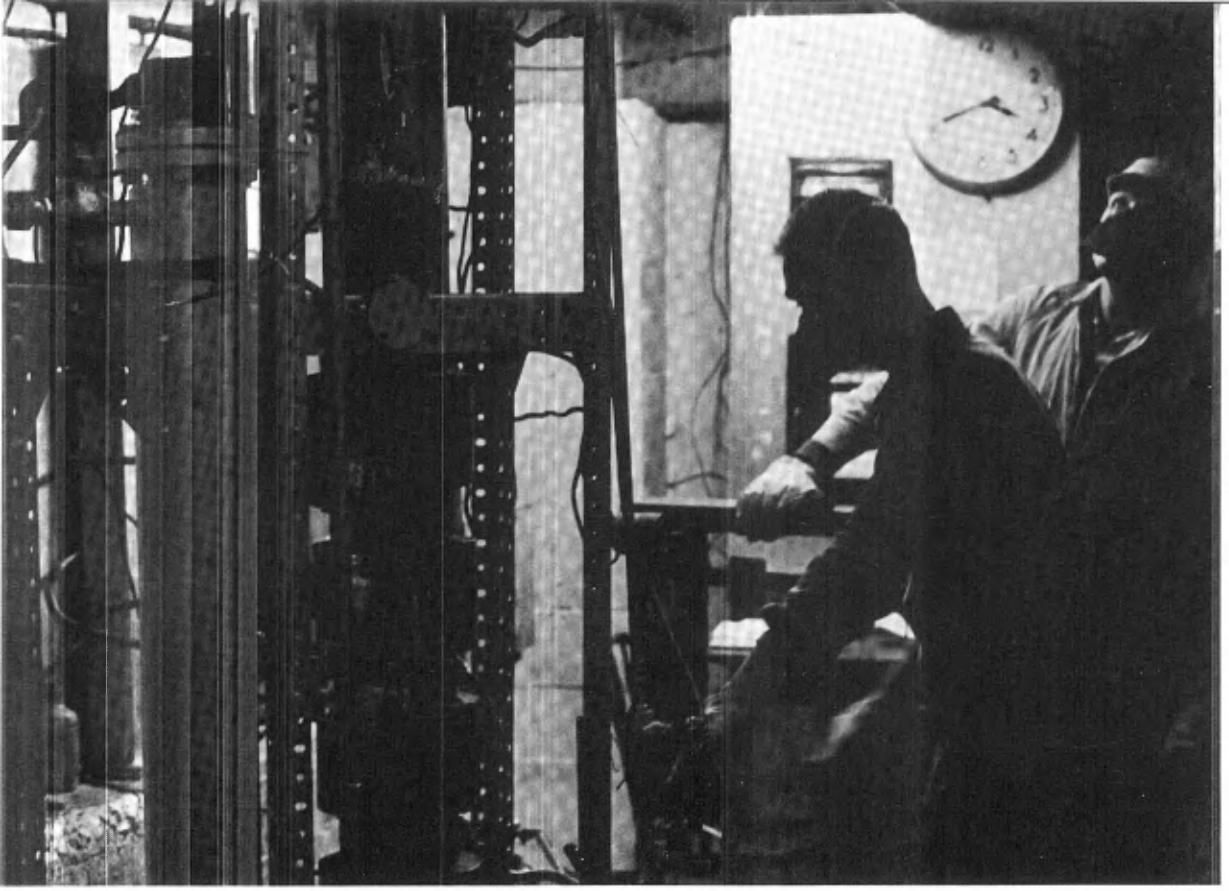
This copper property at Waden Bay, near La Ronge in Saskatchewan, in which your Company has a 58% interest, was brought to production around the end of the year, and shipments of concentrate to Flin Flon for toll-smelting started in February, 1966. There was some delay in mine development and construction work during the year owing to bad weather and labour shortages.

Ore reserves are calculated to be 2 million tons of 2.4% copper, with some small amounts of silver and gold, but the mine property and claims held in the vicinity have not yet been fully explored.

The capital cost estimated to be necessary to bring this property into production at the time when it was reactivated in 1965 was $3,800,000. A change in the method of marketing the product, which will result in higher revenues, will require additional working capital, changes such as the introduction of pebble grinding have been made in the mill, and higher costs for roads and housing have been incurred. These additional expenditures total some $1,500,000 and will be financed by additional bank loans, mortgages for housing from Central Mortgage and Housing Corporation and cash advances and further equipment supplies on a deferred payment basis made by your Company.

Exploration

Notwithstanding the large reserves which the Company has at Elliot Lake, its main exploration objective must still be to assure that the anticipated heavy future demands for uranium can be met. With this in mind, exploration is being carried out in the Elliot Lake area, both on Company properties which have not yet been fully examined and on adjoining claims, and also in the general area from Sault Ste. Marie to Sudbury, Ontario. In addition, potential sources of uranium have been examined in other areas of Canada and the U.S.A.



Pilot uranium refinery, shown here, is forerunner of full-scale facility now under construction by Rio Tinto Dow at Elliot Lake. The new plant will be Canada's first non-government-owned uranium refinery.

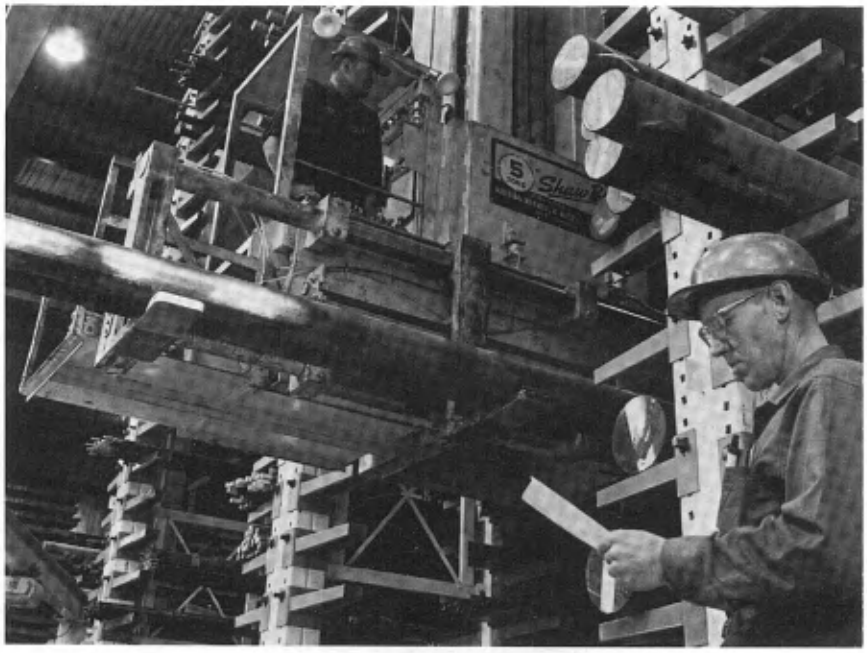
The search for base metals has continued, principally in British Columbia and north-western Quebec. The Lornex porphyry-copper deposit, well situated in southern British Columbia, is being thoroughly examined by the Company's exploration arm, Rio Tinto Canadian Exploration Limited, under an option agreement which could lead to eventual acquisition of a predominant position in it. In north-western Quebec work continues in areas developed as a result of experience in the Poirier district.

Rio Tinto Dow

In November, 1965, the Company acquired from Dow Chemical of Canada Limited the latter's 50% interest in the capital of Rio Tinto Dow Limited, as a result of which it is now wholly-owned. Its name will be changed from Rio Tinto Dow Limited to Rio Tinto Nuclear Products Limited. The operations are managed by your Company's Mining Division.

Sales of thorium concentrates during the year were only moderately satisfactory, although there is hope of improvement arising from a growing demand for thorium-magnesium alloys. The most interesting development, however, is a new market for the rare earth yttrium, which is used in the production of colour television tubes. Yttrium can be produced in conjunction with thorium from the waste liquors of Nordic's uranium circuit and a plant with a capacity of 100,000 pounds per annum has been installed at the Nordic mill at Elliot Lake, first shipments being made in December, 1965. Marketing arrangements have been made through associated companies in Great Britain and the U.S.A.

Construction of a 150-ton-per-year uranium refinery at Elliot Lake is in progress and should be completed in May, 1966. The new facility will be used for continuing process development in this important field as well as to meet what are, as yet, still small commercial orders.



For maximum efficiency, Atlas Alloys employs a unique five-ton-capacity stacker crane at its new Metro Toronto service centre located in suburban Etobicoke. The crane travels both vertically and horizontally, permitting the operator to be on visual level with all 27 shelves of the adjustable storage racks.

Steel Division

The dollar volume of the Steel Division's production and sales reached record levels in 1965. This reflected greater emphasis on the higher alloy products, market development work carried out in prior years, and the generally buoyant market conditions existing during the year.

Over recent years, the Division has increased substantially its production potential through the building of its plant at Tracy, Quebec and its marketing capability through expansion of its marketing organization outside of Canada.

Manufacturing

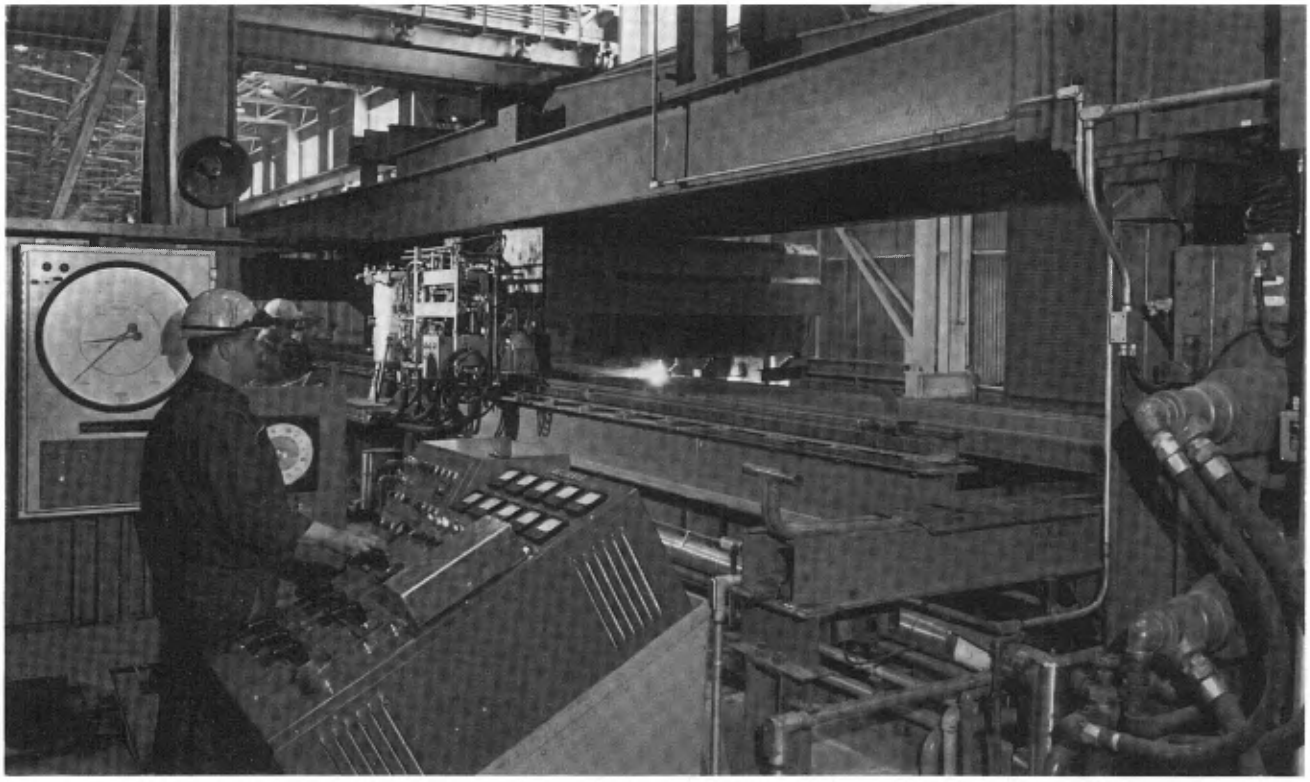
Plant operations at Welland during the year were at capacity in almost all departments, with emphasis on the more profitable, high alloy products. Efficiencies in the use of manpower and materials, as well as process yields, were maintained and in many cases improved, though this only went some way towards meeting the impact of higher wage rates and raw material costs.

The Steel Division has had under constant review plant requirements at Welland, to provide for additional capacity, cost saving improvements and replacement of worn-out equipment. Short and long-term plans are being evolved to meet these needs as they arise in the next few years.

A second cold mill and anneal and pickle line are being installed at the plant at Tracy, Quebec with trial runs expected in June. These added facilities will increase capacity considerably, improving the overall cost picture.

Marketing

Major organizational changes were made during 1965 to integrate the former North American and International Marketing groups. A centralized marketing



Continuous steel slab emerges from continuous casting unit at Atlas Steels' Tracy, Quebec plant, and is torch cut to length.

department has been established at Welland, which will co-ordinate the planning for four world market areas: North America, Europe, Australasia and Latin America. Competition throughout the world is still intense and profit margins are constantly under pressure. These pressures are likely to continue in 1966, although sales prospects in a generally buoyant economy are considered to be good.

The merchandising business carried on in Canada by Alloy Metal Sales Limited has been merged with the distribution operations of the Steel Division, so that all the Company's warehouse activities in Canada are now under one organization, Atlas Alloys. This has already resulted in the integration of certain facilities and will be the basis for systematic expansion of warehousing activities.

The emphasis regarding stainless steel consumer products has been changed from a programme of producing and marketing a narrow range of specific products to one of giving assistance to Canadian manufacturers who are or will become steel customers.

The training programme for employees of Hindustan Steel Limited, Durgapur, India, has now been completed in Welland. Currently, ten Steel Division technical experts are in India assisting with the start-up of the state-owned Alloy Steel Plant.

An agreement with Fundidora de Aceros Tepeyac, S.A., a Mexican steel producer, was concluded during the year. The Steel Division is supplying technical assistance and training.

Research and Development

In the Steel Division, Mill technical activities and Research and Development have been merged into one department. As market requirements are becoming progressively more demanding with respect to

Computer-monitored Sendzimir cold rolling mill at Atlas Steels' Quebec plant reduces the thickness of 48-inch-wide, hot-rolled stainless steel coils down to industry standard sheet thicknesses.

product specifications, metallurgical control and research activities have been increasingly directed towards achieving higher standards, with satisfactory results.

On the mining side, research is mainly directed towards the development and improvement of metallurgical processes, in particular those relating to uranium and rare earths.

The Company also participates in a joint research programme with other associates in the R.T.Z. Group, which handles projects of mutual interest on a co-operative basis.

Employee Relations

The past year was marked by a series of intensive labour negotiations covering both the Mining and Steel Divisions.

The first of these related to the hourly-rated and office and technical employees of Nordic mine. A three-year agreement effective from May, 1965, was signed with the United Steelworkers of America providing annual benefits and wage increases costing an average of 12 cents per hour.

In November, agreement was reached with the hourly-rated employees at Welland for a 30-month contract with the Canadian Steelworkers Union effective August, 1965, the overall cost of which was approximately 36 cents per hour spread over the 30-month period.

United Steelworkers of America was certified as bargaining agent for office and technical workers at the Welland plant and, in December, a 3-year contract was negotiated effective from January, 1966, with total increased benefits and salaries of 43 cents per employee-hour for the period.

After Atlas Steels was acquired by Rio Algom in 1962, there were in existence within the organization four separate pension plans and many widely differing fringe benefit programmes. The unification of these plans has been under review for some two years and, on January 1, 1966, a new Company-wide contributory pension plan, integrated with the Canada Pension Plan, and a contributory programme of health, life, accident, sickness and disability insurance were introduced. These were designed to give equal benefits to eligible employees, thus removing certain anomalies which had existed as a result of bringing the various groups together.

Toronto,
February 18, 1966.

Miscellaneous Corporate Information

Head Office

335 Bay Street, Toronto 1, Ontario, Canada

Principal Bankers

Canadian Imperial Bank of Commerce, Toronto

Solicitors

Fasken, Calvin, MacKenzie, Williston and Swackhamer, Toronto

Auditors

Coopers & Lybrand, Chartered Accountants, Toronto

Registrars and Transfer Agents

Shares

Canada Permanent Trust Company,
Toronto, Montreal, Winnipeg, Calgary and Vancouver
The Canadian Bank of Commerce Trust Company, New York

Warrants

The Canadian Bank of Commerce Trust Company, New York

Shares Listed

Toronto Stock Exchange, Toronto
Montreal Stock Exchange, Montreal
American Stock Exchange, New York

Principal Overseas Associates

United Kingdom

The Rio Tinto-Zinc Corporation Limited
RTZ Metals Limited
6 St. James's Square, London, S.W.1

Imperial Smelting Corporation Limited
1 Redcliffe Street, Bristol

Commonwealth of Australia

Conzinc Riotinto of Australia Limited
The Zinc Corporation Limited
New Broken Hill Consolidated Limited
The Broken Hill Associated Smelters Pty. Limited
Sulphide Corporation Pty. Limited
Comalco Industries Pty. Limited
Hamersley Iron Pty. Limited
Mary Kathleen Uranium Limited
CRA Engineering Pty. Limited
95 Collins Street, Melbourne, C.1

Republic of South Africa

The Rio Tinto Mining Company of South Africa Limited
Palabora Mining Company Limited
40 Commissioner Street, Johannesburg

United States of America

The Pyrites Company, Inc.
P.O. Box 1188, Christina Avenue, Wilmington, Delaware 19899

Alloys and Chemicals Corporation
4365 Bradley Road, South West, Cleveland 9, Ohio

Rhodesia

Rio Tinto (Rhodesia) Limited
Pearl Assurance House, Jameson Avenue, Salisbury.

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Alcalá 95, Madrid

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