

## TABLE OF CONTENTS

Financial Highlights	1
President's Message to the Shareholders	3
Review of Operations	7
Location Map of Operations, Offices and Projects	11
Discussion of Reserves and Underground Exploration	13
Exploration	15
Ten Year Review of Financial Data	17
Consolidated Financial Statements	10

## PHOTOGRAPHS

Cover: Gold ore from Lac Shortt

Page 2: Chalcopyrite-copper ore from Ansil

Page 4: Left to Right

John K. Carrington,

Vice-President - Operations

David H. Watkins, Vice-President – Exploration

Ian D. Bayer,

President and Chief Executive Officer

Page 6: Border - Massive coarse grained sphalerite from Winston Lake

Inset - Zinc, gold, copper

Page 12: Silver-gold-zinc-lead ore from Samatosum

Page 14: Copper-zinc ore from Corbet (Lac Dufault)

On peut se procurer la version française de ce rapport en faisant la demande au bureau administratif de la compagnie, Suite 3970, C.P. 91, Commerce Court West, Toronto, Ontario, Canada M5L 1C7

## MINNOVA Inc.

Suite 3970 P.O. Box 91, Commerce Court West Toronto, Ontario M5L 1C7

## NOTICE OF ANNUAL AND SPECIAL GENERAL MEETING OF SHAREHOLDERS

NOTICE is hereby given that the Annual and a Special General Meeting of Shareholders of Minnova Inc. will be held in Salon Vice Royal, Ritz-Carlton Hotel, 1228 Sherbrooke Street West, Montreal, Quebec, on

#### MONDAY, MAY 9, 1988

at 11:30 a.m. (Montreal Time) for the following purposes:

- to receive the Annual Report, including financial statements and Auditors' Report for the fiscal year ended December 31, 1987;
- 2. to elect Directors;
- 3. to appoint auditors and authorize the Directors to fix the remuneration of the auditors;
- to consider and, if thought fit, approve the enactment of By-law No. 1A which, as described in the accompanying Information Circular, authorizes the continuation of the Company under Part 1A of the Companies Act (Québec);
- 5. to consider and, if thought fit, approve the enactment of By-law No. 2A which, as described in the accompanying Information Circular, repeals and replaces the current general by-laws of the Company due to its continuance under Part 1A of the Companies Act (Québec);
- 6. to consider and, if thought fit, approve the amending of the Company's Stock Purchase Plan, as described in the accompanying Information Circular; and
- 7. to transact such other business as may properly come before the meeting or any adjournment thereof.

A copy of each of the said reports and financial statements and an Information Circular accompany this Notice.

DATED at Toronto, Ontario, this 4th day of April, 1988.

By Order of the Board,

JOHN B. SAGE, Secretary

OF MAN DEMENT

MAY 24 1988

MRIVERSITY

Shareholders are entitled to vote at the meeting either in person or by proxy. If it is not your intention to be present at the meeting, please exercise your right to vote by promptly signing, dating and returning the attached form of proxy in the envelope provided for that purpose.



## MINNOVA Inc.

Suite 3970 P.O. Box 91, Commerce Court West Toronto, Ontario M5L 1C7

## INFORMATION CIRCULAR for the Annual and Special General Meeting of Shareholders to be held on May 9, 1988

#### SOLICITATION OF PROXIES

This circular is furnished in connection with the solicitation by the management of MINNOVA INC. (hereinafter referred to as the "Company") of proxies to be voted at the Annual and Special General Meeting of Shareholders to be held on the 9th day of May, 1988 and at any and all adjournments thereof, for the purposes set forth in the accompanying Notice of Meeting. The solicitation is intended to be primarily by mail and the cost thereof will be borne by the Company.

#### APPOINTMENT AND REVOCATION OF PROXIES

The persons designated in the accompanying form of proxy are Officers of the Company. A shareholder has the right to appoint some other person to represent him at the meeting and he may exercise this right by striking out the names of the persons designated and by inserting such person's name in the blank space provided in the form of proxy. The accompanying form of proxy, when properly signed, confers discretionary authority with respect to amendments or variations of matters identified in the accompanying Notice of Meeting and other matters which may properly be brought before the meeting.

All shares represented by properly executed proxies in the accompanying form deposited with The Canada Trust Company, 110 Yonge Street, Toronto, Ontario, M5C 1T4, prior to the date of the meeting or with the Chairman of the meeting prior to its commencement, will be voted or withheld from voting as directed. In the event no direction is given it is intended that the proxy will be voted **FOR** in each case.

If the appointor is a corporation the instrument of proxy must be signed under its corporate seal or under the hand of an officer or attorney so authorized.

A shareholder who has appointed a proxy in the accompanying form has the power to revoke it at any time before it is exercised by instrument in writing executed by the shareholder or by his attorney authorized in writing or, if the shareholder is a corporation, under its corporate seal or by an officer or attorney thereof duly authorized, and deposited either with the Secretary of the Company at its executive office at Suite 3970, Commerce Court West, Toronto, Ontario, M5L 1C7 prior to the date of the meeting or with the Chairman of the meeting prior to its commencement.

#### APPROVAL OF BY-LAW NO. 1A

By-law No. 1A was enacted by the Board of Directors at its meeting held on February 23, 1988. This By-law authorizes the continuance of the Company under Part 1A of the Companies Act (Québec) (the "Act"). The Company is currently governed by Part 1 of the Act. Part 1A of the Act became effective in 1981 and it simplifies, compared to Part 1 of the Act, the corporate procedures of any company which avails itself of the provisions of Part 1A of the Act. However, until the Act was amended in March of 1987 to extend its application to companies originally incorporated under the Mining Companies Act (Québec), continuance under Part 1A of the Act was not available to the Company.

The Board of Directors considers that it is in the interest of the Company to be continued under Part 1A of the Act in order that the more flexible corporate procedures provided for therein may be available to the Company. By-law No. 1A does not introduce any changes to the deed of incorporation of the Company except to provide that the number of Common Shares which the Company is authorized to issue be unlimited and to provide for various technical changes which are necessary in order to conform to the requirements of Part 1A of the Act.

To become effective, this By-law must be approved by the affirmative vote of at least two-thirds of the votes cast at the meeting. Copies of this By-law are available upon request addressed to the Secretary of the Company.

Management recommends that the shareholders vote for the approval of By-law No. 1A, and it is the intention of the persons named in the enclosed form of proxy to vote the shares represented thereby in favour of such proposal, unless the shareholder signing the proxy has specified otherwise.

#### APPROVAL OF BY-LAW NO. 2A

By-law No. 2A was enacted by the Board of Directors at its meeting held on February 23, 1988. This By-law repeals and replaces the current general by-laws of the Company relating to the general administration of its affairs. The replacement of the general by-laws of the Company is necessary in order to conform to the requirements of Part 1A of the Act.

To become effective, this By-law generally must be approved by the affirmative vote of a majority of the votes cast at the meeting. However, sections 2.09 and 4.01 thereof, relating to the establishment of an Executive Committee of the Board of the Directors and to borrowing, respectively, require the approval by the affirmative vote of at least two-thirds of the votes cast at the meeting. Furthermore, this By-law shall become effective only upon the delivery of a certificate of continuance under Part 1A of the Act. Copies of this By-law are available upon request addressed to the Secretary of the Company.

Management recommends that the shareholders vote for the approval of By-law No. 2A, and it is the intention of the persons named in the enclosed form of proxy to vote the shares represented thereby in favour of such proposal, unless the shareholder signing the proxy has specified otherwise.

## APPROVAL OF AMENDMENTS TO THE STOCK PURCHASE PLAN

The Company's Stock Purchase Plan, approved by the shareholders in April 1987, authorizes the Directors to make interest free loans available from time to time to senior executives of the Company or of its controlling shareholder or of any subsidiary of the Company, who, in the opinion of the Directors, are key employees of the Company or significant contributors to its operations, to purchase from the Company, through a corporate trustee, up to 100,000 Common Shares of the Company in the aggregate (being less than 1 percent of the issued and outstanding Common Shares of the Company).

Loans made pursuant to the Plan are repayable over a period not exceeding seven years. The purchase prices for the shares to be sold pursuant to the Plan shall be their weighted average market price on the date preceding the date on which any offer is made to a senior executive with respect to the availability of the loan facility.

It is proposed that the shareholders now consider amending and, in fact, replacing the Minnova Stock Purchase Plan with an improved format, subject to receiving the required regulatory approvals.

In essence, the only significant changes would involve the following matters:

- 1. The term of the loans would be five (5) years (presently seven years).
- Unless specifically authorized, repayment of the loans would be restricted to 20 percent per year on a cumulative basis, commencing after the first anniversary date (presently no such restrictions).
- 3. The purchase price for the shares would be 90 percent of the market price (presently 100 percent).
- 4. Interest on the loans would be equivalent to the amount, if any, of cash dividends received by the participant (presently interest free, and the participant receives the dividends).
- 5. The total number of Common Shares reserved for issuance under the Plan, and any other employees' share plan, would not exceed 10 percent of the outstanding Common Shares of the Company from time to time. (Presently 100,000 Common Shares are reserved for this Plan, and 250,000 Common Shares are reserved for the Company's Stock Option Plan which was also approved by the shareholders in April 1987).

The amended Plan has been approved conditionally by the Montreal Exchange and The Toronto Stock Exchange where the Common Shares of the Company are listed and, under the applicable rules of these Exchanges, the amended Plan must also be approved by the shareholders of the Company. The affirmative vote of a majority of the votes cast by the holders of Common Shares is being sought to approve the amended Plan.

The Board of Directors recommends that the shareholders vote for the approval of the amended Plan, and it is the intention of the persons named in the enclosed form of proxy to so vote the shares represented thereby, unless the shareholder signing the proxy has specified otherwise.

The text of the amended Plan is available upon request addressed to the Secretary of the Company.

## **VOTING SHARES AND PRINCIPAL HOLDER THEREOF**

The Company's issued and outstanding capital consists of 13,824,296 Common Shares without par value. Each shareholder is entitled to one vote for each share registered in the shareholder's name on the list of holders of Common Shares prepared as of the April 4, 1988 Record Date, unless a person has transferred shares after April 4, 1988 and the new holder of such shares establishes proper ownership and requests at any time before the meeting to be included on the list of shareholders.

Kerr Addison Mines Limited beneficially owns 6,957,196 Common Shares of the Company, representing 50.3% of the presently issued and outstanding shares. No other person or corporation is known to the management to beneficially own more than 10% of the issued shares of the Company.

#### **ELECTION OF DIRECTORS**

There will be eleven (11) Directors elected at the said shareholders' meeting, each to hold office until the next annual meeting or until his successor is elected or appointed. Proxies given pursuant to this solicitation by management will be voted **FOR** the election as Directors of the following proposed nominees, all of whom are presently Directors of the Company.

Name and office held with the Company	Principal occupation	Director since	Number of shares of the Company owned or controlled
Paul-E. Auger, O.C., D.Sc.,	Consulting geologist	1971	400
lan D. Bayer President and Chief Executive Officer	President & Chief Executive Officer, Kerr Addison Mines Limited	1986	1,000
John K. Carrington Vice-President - Operations	Vice-President – Operations of the Company	1986	20,000
J.M. Richard Corbet	Corporate Director	1937	6,000
Philip S. Cross, P.Eng.	Consultant, Kerr Addison Mines Limited	1986	500
Robert Després, O.C.	President, DRM Holdings Inc. (family holding company)	1978	100
Jean-H. Gagné, Q.C.	Partner of Gagné, Letarte, Sirois, Beaudet and Associates (barristers and solicitors)	1965	1,600
Keith C. Hendrick	Senior Vice-President, Noranda Inc. (natural resource developers, operators and manufacturers) and President, Noranda Minerals Inc.	1986	Nil
James W. McCutcheon, Q.C. Chairman of the Board	Partner, Shibley, Righton & McCutcheon (barristers & solicitors)	1986	1,000
Jean P.W. Ostiguy, O.C.	Honorary Chairman, Richardson Greenshields of Canada Limited (investment dealers)	1986	Nil
Alfred Powis, O.C.	Chairman & Chief Executive Officer, Noranda Inc.	1986	Nil

#### NOTES:

The information as to the number of shares owned or controlled, as shown above, has been provided by the Directors individually.

It is not contemplated that any of the nominees will be unable or unwilling to serve as a Director. If, for any reason any of them shall be unable or unwilling to serve, a substitute will be nominated by management.

## COMMITTEES OF THE BOARD OF DIRECTORS

The Board of Directors each year elects from its number an Executive Committee of four Directors and an Audit Committee of three directors. The Directors presently serving on the Executive Committee are Messrs. I.D. Bayer, J.-H. Gagné, J.W. McCutcheon and A. Powis. The Audit Committee is presently comprised of Messrs. J.W. McCutcheon, J.P.W. Ostiguy and A. Powis.

## **EXECUTIVE REMUNERATION**

The Company has six "Executive Officers", as defined in applicable securities legislation, certain of whom receive their compensation, other than directors' fees, from Kerr Addison Mines Limited ("Kerr"), the controlling shareholder of the Company. By agreement, Kerr has provided management and technical services at a cost to the Company of \$600,000 in 1987. Certain of the Executive Officers were paid cash compensation directly by the Company, including directors' fees where applicable, aggregating \$212,667. Some of these officers also received non-cash personal benefits during the year which did not exceed \$15,000 in aggregate value. Pursuant to termination arrangements made with a former Executive Officer in connection with the purchase of control of the Company by Kerr from Falconbridge Limited on August 27, 1986, he has received and will be entitled to receive in the aggregate \$110,000 in 1987 and 1988.

Under the Stock Purchase Plan of the Company, approved by the shareholders in 1987, the Board of Directors from time to time authorizes the Company to make interest-free loans to a corporate trustee to be applied in payment of the subscription price of Common Shares of the Company to be purchased by the trustee from treasury for sale to key employees of the Company or of its controlling shareholder or of any subsidiary of the Company. Each employee gives the trustee a promissory note for the price of the shares sold to him and pledges the shares as collateral security for the payment of the note which is required within seven years from the sale date. The shareholders are being asked to approve the amending of the Plan, as explained earlier in this Circular. A total of 71,000 Common Shares were issued and sold under the Plan in 1987 to eight key employees at a subscription price equal to the market price of the shares at the time.

Indebtedness of the "Senior Executives", as defined in applicable securities legislation, under the Stock Purchase Plan during the year ended December 31, 1987 was and at present is as follows:

	Largest amount	
	outstanding during	Amount
Name and	year ended	currently
municipality of residence	December 31, 1987	outstanding
John K. Carrington, Thornhill, Ontario	\$372,500	\$372,500
Dan Tolgyesi, Ste. Foy, Quebec	186,250	186,250
David H. Watkins, Toronto, Ontario	279,375	279,375

#### REMUNERATION OF DIRECTORS

In accordance with the By-laws of the Company, each Director is remunerated for his services as a Director at such rate as the Board may from time to time determine, and is reimbursed in respect of the out-of-pocket expenses incurred by him in attending meetings of the Board or of any committee of the Board of which he is a member. Each Director of the Company who is not a full time employee of the Company is eligible to be compensated at the rate of \$10,000 per annum. Each Director who is not an Officer or full time employee of the Company is also eligible to be compensated at the rate of \$500 for each meeting of any committee of the Board attended by him.

Mr. P.-E. Auger has a continuing consulting agreement with the Company pursuant to which he was paid \$16,667 (including his fees for acting as a Director) in 1987.

#### APPOINTMENT OF AUDITORS

Proxies given pursuant to this solicitation by management will be voted in favour of the reappointment of Messrs. Clarkson Gordon, Chartered Accountants, as auditors of the Company to hold office until the close of the next annual meeting of shareholders, and for the authorization of the Board of Directors of the Company to fix the remuneration of the auditors.

#### OTHER BUSINESS

Management of the Company knows of no matters to come before the meeting other than the matters referred to in the Notice of Meeting. However, if matters not now known to management should properly come before the meeting, shares represented by proxies solicited by management will be voted on each such matter in accordance with the best judgment of the nominees voting same.

#### **APPROVAL**

The contents and the sending of this Information Circular have been approved by the Board of Directors of the Company.

DATED at Toronto, Ontario, this 10th day of March, 1988.

JOHN B. SAGE Secretary

## MINNOVA Inc.

Bureau 3970 C.P. 91, Commerce Court West Toronto (Ontario) M5L 1C7

## AVIS DE CONVOCATION À L'ASSEMBLÉE ANNUELLE ET EXTRAORDINAIRE DES ACTIONNAIRES

AVIS est par les présentes donné que l'assemblée annuelle et extraordinaire des actionnaires de Minnova Inc. aura lieu au Salon Vice Royal de l'hôtel Ritz-Carlton, 1228, rue Sherbrooke ouest, Montréal (Québec) le

#### **LUNDI 9 MAI 1988**

à 11 h 30 (heure de Montréal) aux fins suivantes :

- recevoir le rapport annuel, y compris les états financiers et le rapport des vérificateurs pour l'exercice terminé le 31 décembre 1987;
- 2. élire les membres du conseil ;
- 3. nommer les vérificateurs et autoriser les membres du conseil à fixer leur rémunération ;
- étudier et, s'il est jugé approprié, approuver l'adoption du règlement n° 1A, lequel, tel qu'il est décrit dans la circulaire d'information ci-jointe, autorise la continuation de la Compagnie en vertu de la partie 1A de la Loi sur les compagnies (Québec);
- 5. étudier et, s'il est jugé approprié, approuver l'adoption du règlement n° 2A, lequel, tel qu'il est décrit dans la circulaire d'information ci-jointe, abroge et remplace le règlement général actuel en raison de la continuation de la Compagnie en vertu de la partie 1A de la Loi sur les compagnies (Québec);
- étudier et, s'il est jugé approprié, approuver la modification du régime d'options d'achat d'actions, tel qu'il est décrit dans la circulaire d'information ci-jointe;
- régler les autres questions qui pourraient être dûment soumises à l'assemblée ou à toute reprise de celle-ci en cas d'ajournement.

Un exemplaire de chacun des rapports et états financiers précités et une circulaire d'information accompagnent le présent avis.

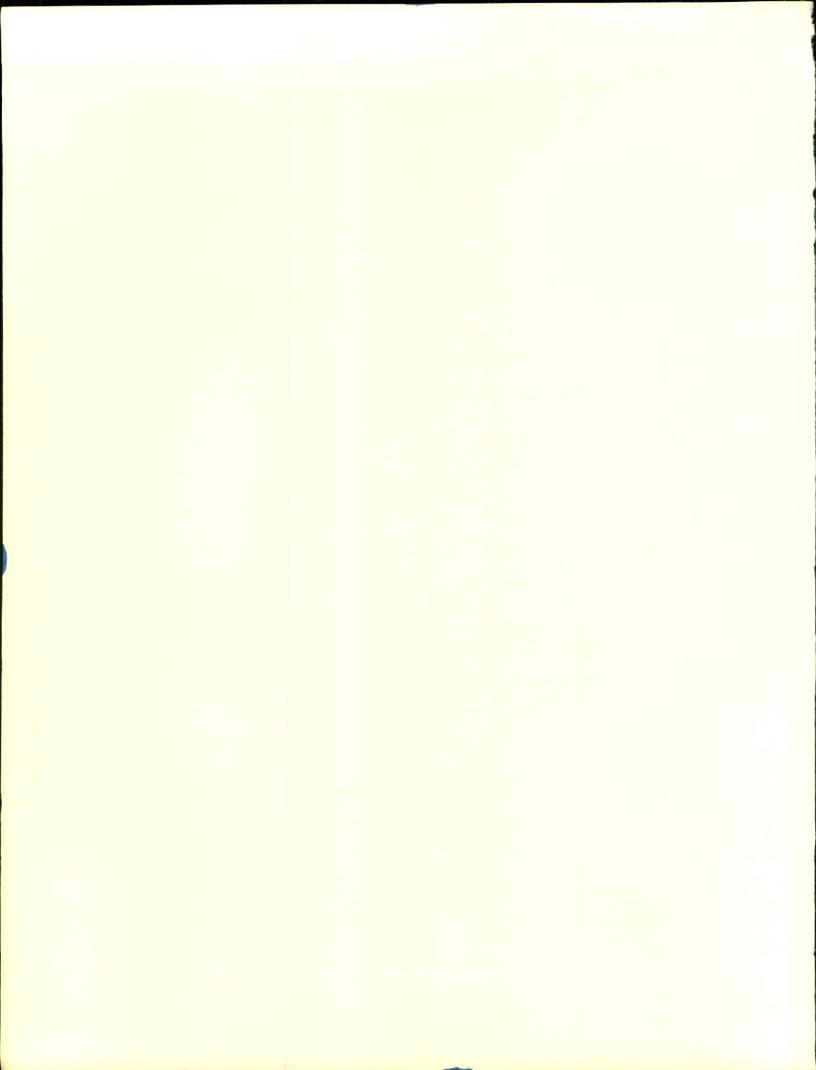
FAIT à Toronto (Ontario), le 4 avril 1988.

Sur l'ordre du conseil d'administration,

Le secrétaire,

JOHN B. SAGE

Les actionnaires ont le droit de voter à l'assemblée en personne ou par procuration. Si vous n'avez pas l'intention d'assister à l'assemblée, veuillez exercer votre droit de vote en signant, datant et retournant sans délai la formule de procuration ci-jointe dans l'enveloppe prévue à cet effet.



## MINNOVA Inc.

Bureau 3970 C.P. 91, Commerce Court West Toronto (Ontario) M5L 1C7

#### CIRCULAIRE D'INFORMATION relative à l'assemblée annuelle et extraordinaire des actionnaires qui doit avoir lieu le 9 mai 1988

#### SOLLICITATION DES PROCURATIONS

La présente circulaire est fournie relativement à la sollicitation par la direction de MINNOVA INC. (ci-après appelée la "Compagnie") de procurations qui doivent être utilisées à l'assemblée annuelle et extraordinaire des actionnaires qui doit avoir lieu le 9 mai 1988, et à toute reprise de celle-ci en cas d'ajournement, aux fins énoncées dans l'avis de convocation ci-joint. Il est prévu que la sollicitation se fera surtout par la poste. La Compagnie assumera tous les frais y afférents.

#### NOMINATION DU FONDÉ DE POUVOIR ET RÉVOCATION DE LA PROCURATION

Les personnes nommées sur la formule de procuration ci-jointe sont membres de la direction de la Compagnie. L'actionnaire a le droit de nommer une autre personne pour le représenter à l'assemblée en rayant le nom des personnes nommées et en insérant le nom de cette autre personne dans l'espace prévu sur la formule de procuration. La formule de procuration ci-jointe, lorsqu'elle est signée en bonne et due forme, confère au fondé de pouvoir un pouvoir discrétionnaire à l'égard des modifications ou variations des questions mentionnées dans l'avis de convocation ci-joint et des autres questions qui pourraient être dûment soumises à l'assemblée.

Toutes les actions représentées par des procurations selon la formule ci-jointe, signées en bonne et due forme et déposées auprès de La Société Canada Trust, 110, Yonge Street, Toronto (Ontario) M5C 1T4 avant la date de l'assemblée ou auprès du président de l'assemblée avant le début de celle-ci, doivent faire l'objet d'un vote ou d'une abstention selon les directives qui y sont données. En l'absence de directive, les procurations doivent faire l'objet d'une vote **EN FAVEUR** de chaque proposition.

Dans le cas d'une société nommant un fondé de pouvoir, la procuration doit être signée sous le sceau de cette société ou par un membre de la direction ou un mandataire autorisé à cette fin.

L'actionnaire qui a nommé un fondé de pouvoir sur la formule ci-jointe a le pouvoir de révoquer la procuration à tout moment avant qu'elle ne soit utilisée au moyen d'un acte écrit et signé par l'actionnaire ou son mandataire autorisé par écrit ou, si l'actionnaire est une société, sous son sceau ou par un membre de la direction ou un mandataire dûment autorisé, et déposé soit auprès du secrétaire de la Compagnie au bureau de direction situé au Bureau 3970, Commerce Court West, Toronto (Ontario) M5L 1C7 avant la date de l'assemblée, soit auprès du président de l'assemblée avant le début de celle-ci.

#### APPROBATION DU RÈGLEMENT N° 1A

Le règlement n° 1A a été adopté par le conseil d'administration à une réunion tenue le 23 février 1988. Ce règlement autorise la continuation de la Compagnie en vertu de la partie 1A de la Loi sur les compagnies (Québec) (la "Loi"). La Compagnie est présentement régie par la partie 1 de la Loi. La partie 1A de la Loi est entrée en vigueur en 1981 et elle simplifie, par rapport à la partie 1 de la Loi, les formalités auxquelles sont assujetties les compagnies qui se prévalent des dispositions de la partie 1A de la Loi. Cependant, jusqu'à ce que la Loi ait été modifiée en mars 1987 en vue de régir également les compagnies initialement constituées en vertu de la Loi sur les compagnies minières (Québec), la Compagnie n'aurait pas pu continuer son existence en vertu de la Partie 1A de la Loi.

Le conseil d'administration estime que la Compagnie a tout intérêt à continuer son existence en vertu de la partie 1A de la Loi, car elle pourra ainsi bénéficier des formalités plus souples qui y sont prévues. Le règlement n° 1A n'entraîne aucune modification de l'acte constitutif de la Compagnie, sauf en ce qui concerne le nombre d'actions ordinaires que la Compagnie est autorisée à émettre qui est désormais illimité et divers changements d'ordre technique qui sont nécessaires pour respecter les exigences de la partie 1A de la Loi.

Ce règlement ne peut prendre effet qu'avec l'approbation d'au moins les deux tiers des voix exprimées à l'assemblée. On peut s'en procurer une copie en écrivant au secrétaire de la Compagnie.

La direction recommande aux actionnaires de voter en faveur de l'approbation du règlement n° 1A, et les personnes qui sont nommées sur la procuration ci-jointe ont l'intention d'exercer les droits de vote afférents aux actions qu'elles représentent en faveur de cette proposition, à moins que l'actionnaire signataire de la procuration n'ait donné d'autres directives.

## **APPROBATION DU RÈGLEMENT N° 2A**

Le règlement n° 2A a été adopté par le conseil d'administration à une réunion tenue le 23 février 1988. Ce règlement abroge et remplace le règlement général actuel de la Compagnie qui régit la gestion de ses affaires. Le remplacement du règlement général de la Compagnie est nécessaire afin de respecter les exigences de la partie 1A de la Loi.

Ce règlement ne peut prendre effet qu'avec l'approbation de la majorité des voix exprimées à l'assemblée. Toutefois, les rubriques 2.09 et 4.01 du règlement, qui portent respectivement sur la formation d'un comité de direction du conseil d'administration et sur les emprunts, exigent l'approbation d'au moins les deux tiers des voix exprimées à l'assemblée. En outre, ce règlement ne prendra effet qu'au moment de la remise d'un certificat de continuation en vertu de la partie 1A de la Loi. On peut s'en procurer une copie en écrivant au secrétaire de la Compagnie.

La direction recommande aux actionnaires de voter en faveur de l'approbation du règlement n° 2A, et les personnes qui sont nommées sur la procuration ci-jointe ont l'intention d'exercer les droits de vote afférents aux actions qu'elles représentent en faveur de cette proposition, à moins que l'actionnaire signataire de la procuration n'ait donné d'autres directives.

## APPROBATION DES MODIFICATIONS AU RÉGIME D'ACHAT D'ACTIONS

Le régime d'achat d'actions de la Compagnie, que les actionnaires ont approuvé en avril 1987, autorise les membres du conseil à consentir des prêts sans intérêt de temps à autre à des dirigeants de la Compagnie, de son actionnaire majoritaire ou de l'une de ses filiales qui, de l'avis des membres du conseil, constituent des employés clés de la Compagnie ou contribuent de façon remarquable à son exploitation, en vue de l'achat, par l'intermédiaire d'une société de fiducie, d'un maximum de 100 000 actions ordinaires de la Compagnie au total (ce qui représente moins d'un pour cent des actions ordinaires émises et en circulation de la Compagnie).

Les prêts consentis aux termes du régime sont remboursables sur une période maximale de sept ans. Le prix d'achat des actions qui doivent être vendues aux termes du régime correspond à leur cours moyen pondéré à la date précédant la date à laquelle le prêt est offert à un dirigeant.

Il est proposé aux actionnaires d'envisager la modification et, en fait, le remplacement du régime d'achat d'actions de Minnova par un régime amélioré, sous réserve de l'approbation requise des autorités de régie.

Les seuls changements importants porteraient essentiellement sur les questions suivantes :

- 1. La durée des prêts serait de cinq (5) ans (elle est présentement de sept (7) ans).
- À moins d'autorisation expresse, le remboursement des prêts serait limité à 20 % par année de façon cumulative, à compter du premier anniversaire (il n'existe présentement aucune restriction de ce genre).
- 3. Le prix d'achat des actions correspondrait à 90 % du cours (il correspond présentement à 100 %).
- L'intérêt sur les prêts serait équivalent aux dividendes en espèces, le cas échéant, reçus par le participant (à l'heure actuelle, les prêts ne portent pas intérêt et le participant touche les dividendes).
- 5. Le nombre total d'actions ordinaires réservées à des fins d'émission aux termes du régime, et de tout autre régime d'achat d'actions des employés, n'excéderait pas 10 % des actions ordinaires en circulation de la Compagnie. (À l'heure actuelle, 100 000 actions ordinaires sont réservées aux fins de ce régime, et 250 000 actions ordinaires sont réservées aux fins du régime d'options d'achat d'actions de la Compagnie qui a également été approuvé par les actionnaires en avril 1987).

Le régime modifié a été approuvé sous condition par la Bourse de Montréal et la Bourse de Toronto où les actions ordinaires de la Compagnie sont inscrites et, en vertu des règles applicables de ces bourses, il doit également être approuvé par les actionnaires de la Compagnie. Le vote affirmatif de la majorité des voix exprimées par les porteurs d'actions ordinaires est requis pour approuver le régime modifié.

Le conseil d'administration recommande aux actionnaires de voter en faveur de l'approbation du régime modifié, et les personnes nommées sur la procuration ci-jointe ont l'intention d'exercer les droits de vote afférents aux actions qu'elles représentent en faveur de cette proposition, à moins que l'actionnaire signataire de la procuration n'ait donné d'autres directives.

On peut se procurer une copie du régime modifié en écrivant au secrétaire de la Compagnie.

## ACTIONS COMPORTANT DROIT DE VOTE ET PORTEUR PRINCIPAL

Le capital émis et en circulation de la Compagnie se compose de 13 824 296 actions ordinaires sans valeur nominale. Chaque actionnaire a droit à une voix par action immatriculée à son nom sur la liste des porteurs d'actions ordinaires en date du 4 avril 1988, date de clôture des registres, à moins d'avoir transféré ses actions après le 4 avril 1988 et que le nouveau porteur établisse qu'il en est le propriétaire et exige, en tout temps avant l'assemblée, que son nom figure sur la liste des actionnaires.

Kerr Addison Mines Limited est propriétaire véritable de 6 957 196 actions ordinaires de la Compagnie, qui représentent environ 50,3 % des actions présentement émises et en circulation. À la connaissance de la direction, aucune autre personne physique ou morale n'est propriétaire véritable de plus de 10 % des actions émises de la Compagnie.

## **ÉLECTION DES MEMBRES DU CONSEIL**

Onze (11) membres du conseil seront élus à l'assemblée des actionnaires, chacun pour un mandat qui prendra fin à la prochaine assemblée annuelle ou lorsque son successeur sera élu ou nommé. Les droits de vote afférents aux procurations accordées à la suite de la présente sollicitation par la direction seront exercés **EN FAVEUR** de l'élection des candidats suivants aux postes de membres du conseil, qui sont tous présentement membres du conseil de la Compagnie.

Nom et poste au sein de la Compagnie	Fonctions principales	Membre du conseil depuis	Nombre d'actions détenues en propriété ou sur lesquelles une emprise est exercée
Paul-E. Auger, O.C., D.Sc.	Géologue conseil	1971	400
lan D. Bayer Président et chef de la direction	Président et chef de la direction, Kerr Addison Mines Limited	1986	1 000
John K. Carrington Vice-président, Exploitation	Vice-président, Exploitation de la Compagnie	1986	20 000
J.M. Richard Corbet	Membre du conseil de sociétés	1937	6 000
Philip S. Cross, P.Eng.	Conseiller, Kerr Addison Mines Limited	1986	500
Robert Després, O.C.	Président, DRM Holdings Inc. (société de portefeuille familiale)	1978	100
Jean-H. Gagné, c.r.	Associé de Gagné, Letarte, Sirois, Beaudet et Associés (avocats)	1965	1 600
Keith C. Hendrick	Vice-président principal, Noranda Inc. (mise en valeur, exploitation et transformation de ressources naturelles) et président, Minéraux Noranda Inc.	1986	Aucune
James W. McCutcheon, c.r. Président du conseil	Associé de Shibley, Righton & McCutcheon (avocats)	1986	1 000
Jean P.W. Ostiguy, O.C.	Président du conseil honoraire, Richardson Greenshields du Canada Limitée (courtiers en valeurs mobilières)	1986	Aucune
Alfred Powis, O.C.	Président du conseil et chef de la direction, Noranda Inc.	1986	Aucune

#### NOTES:

Les renseignements susmentionnés à l'égard du nombre d'actions détenues en propriété ou sur lesquelles une emprise est exercée ont été fournis par chaque membre du conseil.

Il n'est pas prévu qu'aucun des candidats soit incapable d'agir en qualité de membre du conseil ou refuse de le faire. Si, pour une raison quelconque, l'un d'entre eux était incapable d'agir en qualité de membre du conseil ou refuserait de le faire, un remplaçant serait nommé par la direction.

## COMITÉS DU CONSEIL D'ADMINISTRATION

Le conseil d'administration élit chaque année parmi ses membres un comité de direction composé de quatre personnes et un comité de vérification composé de trois personnes. Les membres actuels du comité de direction sont MM. I.D. Bayer, J.-H. Gagné, J.W. McCutcheon et A. Powis. Le comité de vérification comprend présentement MM. J.W. McCutcheon, J.P.W. Ostiguy et A. Powis.

## RÉMUNÉRATION DES DIRIGEANTS

La Compagnie compte six "hauts dirigeants" au sens de la législation applicable en matière de valeurs mobilières, dont certains touchent leur rémunération, outre les jetons de présence, de Kerr Addison Mines Limited ("Kerr"), actionnaire majoritaire de la Compagnie. En vertu d'une entente, Kerr a fourni en 1987 des services de gestion et des services techniques à la Compagnie en contrepartie de 600 000 \$. Certains hauts dirigeants ont reçu directement de la Compagnie une rémunération au comptant, y compris les jetons de présence le cas échéant, totalisant 212 667 \$. Certains de ces dirigeants ont également touché certains avantages personnels autres qu'en espèces pendant l'exercice, dont la valeur totale ne dépassait pas 12 000 \$. Aux termes de certains arrangements de cessation d'emploi conclus avec un ancien haut dirigeant relativement à l'acquisition du contrôle de la Compagnie par Kerr de Falconbridge Limitée le 27 août 1986, ce dernier a reçu, et a le droit de recevoir, au total, 110 000 \$ en 1987 et en 1988.

Aux termes du régime d'achat d'actions de la Compagnie qui a été approuvé par les actionnaires en 1987, le conseil d'administration autorise la Compagnie à consentir des prêts sans intérêt à des sociétés de fiducie aux fins du paiement du prix de souscription des actions ordinaires non émises de la Compagnie que la société de fiducie doit acheter en vue de les revendre aux employés clés de la Compagnie, de son actionnaire majoritaire ou de l'une de ses filiales. Chaque employé doit donner à la société de fiducie un billet à ordre correspondant au prix des actions qui lui sont vendues et donner les actions en nantissement comme garantie du remboursement du billet, qui est requis dans les sept années suivant la date de la vente. Les actionnaires doivent approuver la modification du régime, comme il est indiqué ci-dessus dans la présente circulaire. Au total, 71 000 actions ordinaires ont été émises et vendues aux termes du régime en 1987 à huit employés clés, à un prix de souscription correspondant au cours des actions.

Les prêts aux dirigeants, au sens de la législation applicable en matière de valeurs mobilières, consentis aux termes du régime d'achat d'actions pendant l'exercice terminé le 31 décembre 1987, s'établissent comme suit :

Nom et municipalité de résidence	somme la plus elevee impayée au cours de l'exercice terminé le 31 décembre 1987	Somme présentement impayée
John K. Carrington, Thornhill (Ontario)	372 500 \$	372 500 \$
Dan Tolgyesi, Ste-Foy (Québec)	186 250 \$	186 250 \$
David H. Watkins, Toronto (Ontario)	279 375 \$	279 375 \$

#### RÉMUNÉRATION DES MEMBRES DU CONSEIL

Conformément aux règlements de la Compagnie, chaque membre du conseil est rémunéré en contrepartie de ses services à ce titre au taux fixé par le conseil d'administration, et ses frais et débours divers engagés pour assister aux réunions du conseil, ou de l'un des comités du conseil dont il est membre, lui sont remboursés. Chaque membre du conseil de la Compagnie qui n'est pas employé à plein temps de la Compagnie est admissible à une rémunération annuelle de 10 000 \$. Chaque membre du conseil qui n'est pas membre de la direction ou employé à plein temps de la Compagnie est également admissible à une rémunération de 500 \$ pour chaque réunion d'un comité du conseil à laquelle il assiste.

M. P.-E. Auger a conclu avec la Compagnie un accord permanent de consultation aux termes duquel il a reçu 16 667 \$ (y compris ses jetons de présence en qualité de membre du conseil) en 1987.

## **NOMINATION DES VÉRIFICATEURS**

Les droits de vote conférés par les procurations accordées dans le cadre de la présente sollicitation par la direction seront exercés en faveur du renouvellement du mandat de Clarkson Gordon, comptables agréés, à titre de vérificateurs de la Compagnie, jusqu'à la clôture de la prochaine assemblée annuelle des actionnaires, et en vue d'autoriser le conseil d'administration de la Compagnie à fixer leur rémunération.

#### **AUTRES QUESTIONS**

La direction de la Compagnie n'est au courant d'aucune question qui doit être soumise à l'assemblée autre que celles qui sont mentionnées dans l'avis de convocation. Cependant, si d'autres questions dont la direction n'est pas au courant sont dûment soumises à l'assemblée, les droits de vote afférents aux actions représentées par les procurations sollicitées par la direction seront exercés à la discrétion du fondé de pouvoir.

#### APPROBATION

Le contenu et l'envoi de la présente circulaire d'information ont été approuvés par le conseil d'administration de la Compagnie.

FAIT à Toronto (Ontario), le 10 mars 1988.

Le secrétaire,

JOHN B. SAGE

## FINANCIAL HIGHLIGHTS

(\$000's omitted, except per share amounts)	1987	1986
Sales from metal shipments (gross)	\$62,384	\$86,245
Earnings for the year	3,257	4,652
Earnings per share	0.24	0.35
Cash at end of year	87,655	72,193
Expenditures on exploration and development Additions to property, plant and equipment	17,550	14,299
Producing properties	543	1,736
Properties under development	59,728	24,702

IN THIS REPORT

Dollars are Canadian unless otherwise noted. As at December 31, 1987 US\$ = Cdn. \$1.30 (1986: US \$1 = Cdn. \$1.38)

#### HIGHLIGHTS

- 1987 marked the Company's 50th anniversary in mining.
- the new name, Minnova Inc., was approved by the shareholders.
- the sale of \$65 million of Convertible Debentures was a success.
- the development and construction of the Winston Lake Division zinc mine was completed on schedule and within budget.
- the production decision for the Ansil copper deposit was made in early 1988, following completion in 1987 of the underground evaluation programme.
- the discovery of the Samatosum silver deposit was confirmed.
- an underground exploration programme at the Donalda gold property was initiated.

#### ANNUAL AND SPECIAL GENERAL MEETING

The annual and special general meeting of shareholders will be held in the Salon Vice Royal of the Ritz-Carlton Hotel, 1228 Sherbrooke Street West, Montreal, Quebec on Monday, May 9, 1988 at 11:30 a.m. (Montreal Time)



## COMPANY PROFILE

Minnova is a natural resource company in the business of exploring, developing and mining a diversified range of commodities primarily copper, zinc, gold and silver. A distinguished record of achievement is embodied in over 60 years of exploration heritage which began with Ventures Limited, and Falconbridge Nickel in 1928. Growth flourished as a result of a merger in 1971 of two famous mines: Opemiska Copper Mines (Quebec), and Lake Dufault Mines into Falconbridge Copper which subsequently became Corporation Falconbridge Copper. In August 1986, control of the Company was acquired by Kerr Addison Mines Limited and a new name, Minnova Inc. (derived from "mining innovation") was selected, as it best describes the Company's operations and the philosophies which guide them.

	MINNOVA INC.	
	Principal Assets	
Operating Mines	LAC SHORTT DIVISION • Gold	94.2%
	OPEMISKA DIVISION  Copper Gold	100%
Developing Mines	WINSTON LAKE DIVISION  • Zinc  • Copper	100%
	LAC DUFAULT DIVISION (Ansil Mine Project)  Copper Gold	100%
Advanced Exploration Projects	SAMATOSUM PROJECT  • Silver  • Base metals	70%
	DONALDA PROJECT  ○ Gold	65%
Other	NEVCAN EXPLORATION INC.	100%
	DYNATEC MINING LIMITED	30%

## PRESIDENT'S MESSAGE TO THE SHAREHOLDERS

We must be at the leading edge of new developments in the industry to find, develop and operate competitive mines.

uring 1987, the Company achieved its 50th Anniversary in the mining business. In this context, I am pleased to report that J.M.R. "Dick" Corbet, one of our current directors, has now provided over fifty years of wise counsel and able direction to the affairs of the Company. Dick was a founding member of Lake Dufault Mines Limited, a predecessor company incorporated in 1937.

Our new corporate name, Minnova Inc., was approved by the shareholders in April. Derived from "mining innovation", it reflects our view that this Company must be at the leading edge of new developments in the industry to find, develop and operate competitive mines.

Our most outstanding achievement during the past year was completing the development and construction of the Winston Lake zinc mine on schedule and within budget. Commissioning of the concentrator began in January 1988, and production at capacity levels should commence by the end of the first quarter.

A decision was made to place the Ansil copper deposit into production following the completion of the underground evaluation programme during 1987. Although the results from that programme indicate a reduction in reserves from the previous estimates, the property offers excellent potential and underground exploration will

recommence in the second half of this year. Capital costs to complete development are estimated at \$30 million and the mine should be in production by the first quarter of 1989.

On September 30, 1987, the Company completed the sale of \$65 million of Adjustable Rate Convertible Subordinated Debentures to the public through a group of investment dealers. The primary purpose of this issue was to provide financing to complete development of the Winston Lake and Ansil mines.

At the 70 percent owned Samatosum property, an extensive surface diamond drilling programme has established the existence of a small massive sulphide deposit containing high silver values. Metallurgical testing and a preliminary feasibility study are currently in progress. We believe that this project will become a producing mine within two years.

Surface diamond drilling on the 65 percent owned Donalda property has confirmed a new interpretation of the No. 1 vein structure. As a result, an underground exploration programme to evaluate this and a second gold vein has commenced. The surface mining plant is in place and dewatering of the existing shaft is in progress. This programme should be completed by the middle of 1989.

#### OPERATING AND FINANCIAL RESULTS

Net income for 1987 was \$3.3 million, or 24 cents per share, compared to earnings of 35 cents per share in 1986. Metal production and operating income declined from the previous year because of the closure of the

Corbet mine in the fall of 1986 and lower gold production. These factors were somewhat offset by improved prices for gold and copper in 1987. Gold production was 78,000 ounces, down 25 percent from 1986 because of a reduced level of operations at Opemiska and lower mill heads at Lac Shortt.

The Lac Shortt and Opemiska operations performed in line with expectations during 1987. At Lac Shortt, underground drilling has indicated that the main zone continues to 1,000 metres, or 500 metres below the existing workings. Engineering studies are in progress to determine the most effective method of exploiting this zone at depth. However, results to date from diamond drilling in a zone 1,000 metres west of the main zone have been erratic and inconclusive. The staff and employees at the Opemiska Division deserve special mention as they achieved excellent operating results in 1987, with only a slight reduction in reserves.

Total cash provided from financing and operating activities amounted to \$75.2 million during 1987. Capital expenditures were \$59.7 million, including \$40.9 million at Winston Lake and \$18.8 million on the Ansil project. Cash and short-term investments increased by \$15.5 million during the year, to a balance of \$87.7 million at December 31, 1987.



### BUSINESS ENVIRONMENT

During the past year there were a number of notable achievements by the Canadian Government which will have a positive impact on the future business environment in this country. The Free Trade Agreement approved by the political leaders of Canada and the United States will be extremely beneficial to the mining industry, as it will gradually improve access for our products in the important United States market. The Meech Lake Accord brings the Province of Quebec into the Canadian constitution. The federal tax reform proposals provide for a more equitable income tax system and lower tax rates, thereby placing Canadian enterprises in a more competitive position internationally.

The ability of many Canadian companies to finance mineral exploration and mine development will become more difficult over the next few years. This is because of two factors, the recent major correction in equity markets and the reduced benefits from flow-through share transactions as proposed in the tax reform package. Minnova is well positioned to operate and excel in this new environment because of its expertise in the industry and strong financial condition.

The economies of the major countries in the western world have now completed five years of growth. During 1987, this finally began to impact on the industrial sector, resulting in strong demand for most



Winston Lake - headframe and mining plant

commodities. Precious metal prices increased strongly during the year and base metal prices responded during the second half. Demand for metals has strengthened and inventories are generally at reasonable levels. In addition, the reduction in the Canadian and U.S. dollars from their previously overvalued positions relative to other major currencies has made our production costs more competitive. We anticipate that market prices should decline from the high levels achieved at the end of 1987, although markets should generally remain stronger than those which existed during the mid – 1980's.

#### OUTLOOK

The Company's long-term future depends heavily on our ability to continue to find new mines and increase reserves at existing operations. This begins with strong and consistent financial support to our highly professional exploration team. Our efforts are concentrated on specific areas of interest for extended periods of time and on existing operations. Surface and underground exploration expenditures in 1987

amounted to \$17.5 million, while an additional \$3.7 million from joint venture partners was spent on exploration projects. We intend to maintain this strong commitment in the future.

The Winston Lake zinc mine should produce at capacity levels for the last three quarters of 1988. The Ansil copper deposit is expected to commence production in the first quarter of 1989. We believe that the Samatosum silver deposit will be producing within two years and the evaluation on the Donalda gold deposit should be completed by the middle of 1989. These new deposits will result in a substantial increase in production over the next two years and a healthy balance between gold, silver, zinc and copper metals. This will have a very positive impact on our cash flow if we achieve our objective of controlling operating and development costs. The Company has the financial ability to complete all of these projects from existing cash reserves and operating cash flow, and remain debt-free.

Our future is very dependent upon the abilities of not only our management but all of our employees. On behalf of the Board of Directors, I would like to thank them for their efforts and diligence during the past year.

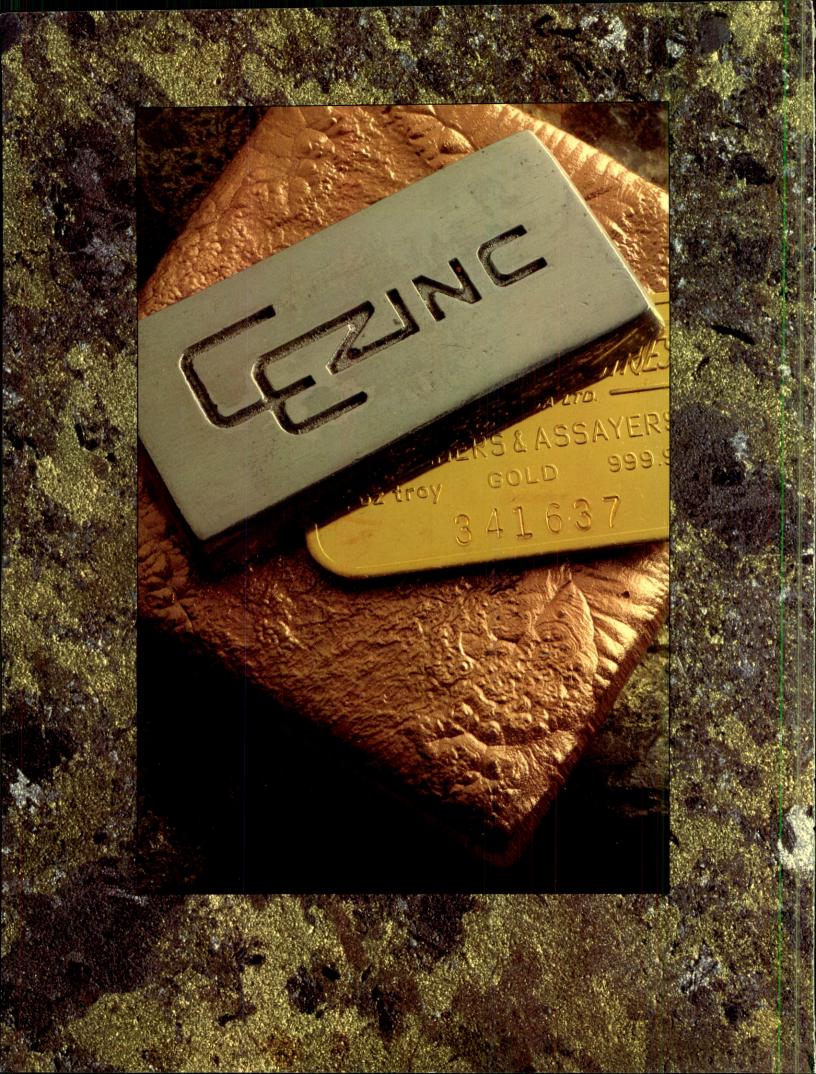
Ian D. Bayer

President and Chief Executive Officer

Jan 1 So

Toronto, Canada

February 23, 1988



#### REVIEW OF OPERATIONS

During 1987, accomplishments of note were achieved at all of Minnova's operating divisions. While these are discussed in each divisional report, it is appropriate to comment briefly on Minnova's operating strengths, commitments and outlook.

ow does a medium sized mining company maintain a competitive operating edge in today's international minerals industry? Minnova believes that, coupled with the successful discovery of high grade and preferably large deposits, it must apply the very best in technology and innovation to properly utilize its two fundamental resources: people and capital. Recruitment of personnel who are abreast of technological developments and participation in mining and mineral research programmes are two priority tasks for Minnova.

It is clear that computers, automation and mechanization have significant roles in mining operations, both today and tomorrow. To this end, the Lac Dufault and Winston Lake Divisions have installed complete geological and engineering computer work stations to facilitate geological and mine planning. The Winston Lake Division has purchased three remote control units for its underground scooptrams which will allow the mucking of blasted ore and waste in areas where the operator should not enter. At the Lac Shortt Division, where employees work and stay at the mine for extended periods of time, emphasis is given to employee participation in the direction of their work. As a result, a number of the work schedules have been changed, for example, from twelve days on/nine days off to seven on/seven off in reponse to concerns about the length of time away from home and the questionable effects of the long

period on safety and productivity. At all three of these mines, extensive use of rock mechanics testing, modelling and design is being made to assist in mine planning and production control. But "better" does not necessarily mean more complex or costly. At the Opemiska Division, the introduction of sluice boxes in the grinding circuit led to an improvement in gold recovery, some 1,900 ounces of its 1987 gold production being recovered from sluice boxes.

Further to recognizing the need for keeping abreast of mining developments and technology, in December 1987, Minnova purchased a 30% interest in Dynatec Mining Limited. Dynatec is a young, successful Canadian mine contracting firm which provides a full range of contract development services and engineering. Minnova sees both business and technology opportunities for it in this transaction.

Today, Minnova employs over 750 people. It is the Company's belief that any dedicated person is more than just an employee; she or he is a stakeholder in the Company. These people are the fabric of this Company. Employee involvement is a key factor in building understanding, commitment and success. Our employees' skills range from the professional to the technical, be they miners, engineers, accountants, mill operators, managers or support staff. This pool of talent is being forged into effective operating groups which have the ability to identify with the Company in its challenge to succeed, to seize and capitalize on opportunities, and to produce metals in a safe, efficient and profitable manner.

The continued success of Minnova's mining operations is directly related to the abilities of the Company and its personnel to respond to the economic environment in which they operate. Developing, mining and milling innovatively are integral to this goal.

## LAC SHORTT DIVISION

Lac Shortt Mine and Mill

The Division's operating profit showed a decrease of 10% over 1986 results. In spite of a significantly improved price for gold, the most important factor contributing to this was the reduced gold head grade over 1986. This decline in head grade was not unexpected as all production in 1987 came from between the 500 metre and 400 metre levels where lower grade ore was anticipated. Increased dilution was experienced also in some stopes due to minor rock bursting. During the year, there were no untoward problems in the mill.

Rock mechanics modelling has indicated that a change in stope sequencing should alleviate the bursting conditions and development to affect this change commenced in the fourth quarter. Results from these studies are being incorporated in plans for future deep development work. The change in stope sequencing, while improving dilution and operating conditions, will result in a slightly reduced production rate for 1988, the planned rate being 360,000 tonnes compared to 400,000 tonnes in 1987. Every effort will be made to maximize production consistent with safe and efficient mining operating procedures.

Studies are underway to determine the feasibility of deepening the shaft to explore in detail and develop possible reserves below the 500 metre level. A decision is expected by the end of the first quarter.

Once again, the employees at Lac Shortt achieved an enviable safety record for 1987. The lost time accident frequency was 1.3 per 200,000 man hours worked compared to 9.0, the average frequency for all metal mines of the Quebec Metal Mining Association. Typically, an operation with 100 employees works approximately 200,000 man hours per year. As in 1986, the employees at Lac Shortt again are to be commended for their excellent accomplishment.

### OPEMISKA DIVISION

- Springer Mine
- Cooke Mine
- Perry Mine
- Opemiska Mill

With improved prices in both copper and gold, the Division generated an operating profit of \$5.9 million, a significant improvement over 1986. In spite of a 12% decrease in tonnage milled, copper production equalled 1986 levels, although gold production was considerably less, due to its lower grade. The contributions of gold, copper and silver this year to net revenues were 60%, 38% and 2% respectively. Unit costs per ton decreased slightly, a significant achievement in light of the decreased tonnage milled.

The emphasis in mining during 1987 was on higher grade gold zones, primarily at the Cooke mine. As well, development of better grade gold ore at the Springer mine

Financial Review (\$00	0's) <b>1987</b>	1986
Net sales	\$31,968	\$32,852
Cost of production:		
Mining	10,821	10,452
Milling	3,464	3,476
Plant General	1,926 3,011	1,818 3,021
General		
distributed the same of the sa	19,222	18,767
Operating profit	12,746	14,085
Minority interest	739	817
Underground	0 100	1 161
exploration	2,138	1,161
Depreciation and depletion	6,632	6,820
Profit before tax	\$ 3,237	\$ 5,287
Production Raview	1987	1986
Production Review	1987	
Tonnes milled (000's)	396	400
Tonnes milled (000's) Grade, g/t	396 4.53	400 5,32
Tonnes milled (000's) Grade, g/t Recovery, %	396	400 5,32
Tonnes milled (000's) Grade, g/t	396 4.53	400 5.32 93.7
Tonnes milled (000's) Grade, g/t Recovery, % Production, gold	396 4.53 93.2	400 5.32 93.7
Tonnes milled (000's) Grade, g/t Recovery, % Production, gold (ounces)	396 4.53 93.2	400 5.32 93.7 64,031
Tonnes milled (000's) Grade, g/t Recovery, % Production, gold (ounces)  Average price received	396 4.53 93.2 53,889	400 5.32 93.7 64,031 \$513
Tonnes milled (000's) Grade, g/t Recovery, % Production, gold (ounces)  Average price received per oz. Cost per ounce Operating cost,	396 4.53 93.2 53,889	400 5.32 93.7 64,031 \$513 \$298
Tonnes milled (000's) Grade, g/t Recovery, % Production, gold (ounces)  Average price received per oz. Cost per ounce	396 4.53 93.2 53,889 \$593 \$357	1986 400 5.32 93.7 64,031 \$513 \$293 \$46.96
Tonnes milled (000's) Grade, g/t Recovery, % Production, gold (ounces)  Average price received per oz. Cost per ounce Operating cost,	396 4.53 93.2 53,889 \$593 \$357	400 5.33 93.7 64,03 \$513 \$290

was undertaken and production from this zone commenced during the fourth quarter. Dilution became a serious problem at the Cooke mine and the mining method there was changed from sublevel to shrinkage stoping. As production from the shrinkage stopes will not be available until the first quarter of 1988, gold grades were lower than planned during the latter part of the year. With the improvement of the copper price, a review of developed copper reserves primarily at the Perry mine was commenced in the fourth quarter. Where sufficient tonnage at the right grade is available, this material will be included when feasible in the 1988 production plan. The mill operated without serious problems throughout the year.

A three year agreement expiring May 31, 1990 between the Company and Le Syndicat des Travailleurs des Mines de Chapais (CSN) was reached after a nineteen day strike in June.

The most significant fact about the Division for 1987 was its very creditable financial results despite low metal prices for more than half the year, falling gold grade, decreased tonnage available for the mill and generally rising prices for labour and supplies. The results are a tribute to the dedication of all the employees there.

On September 1, 1987 the Company was pleased to announce the appointments of Mr. Dan Tolgyesi as General Manager – Quebec and Mr. Michel Garon as Mine Manager for the Opemiska Division.

#### LAC DUFAULT DIVISION

- Norbec Mill
- Ansil Mine Project

During the year, the Norbec mill treated 140,668 tonnes of ore on a custom basis from the Mobrun property of Audrey Resources Inc. Metallurgical performance was as expected with some improvement resulting from the installation of a regrind mill for the zinc concentrate. The Norbec mill will continue milling Mobrun ore during 1988 pending the requirements for Ansil ore. Modifications needed in the grinding, crushing and flotation circuits for Ansil ore were done during periods of no production from Mobrun. During the first and second quarters the remaining stockpiled Corbet ore was treated, a total of 14,517 tonnes to produce 791,000 pounds of copper and 501,000 pounds of zinc.

At year-end there were 115 active employees at the Division, compared to 126 a year ago. The decrease reflects the temporary laying off of mining and development crews after the completion of the underground exploration programme at Ansil. These and other employees will be recalled early in 1988 as preproduction development commences at Ansil. On June 1, 1987 an agreement between the Company and its hourly rated employees covering the wage provisions for the third year of the collective bargaining agreement was reached. This agreement expired in November and a new three-year contract was reached in February 1988.

012011111111111111111111111111111111111	V	
Financial Review (\$000	's) 1987	1986
Net sales	\$24,680	\$25,520
Cost of production:		
Mining	10,576	13,143
Milling	1,463	1,597
Plant	3,452	3,415
General	3,255	3,509
	18,746	21,664
Operating profit	5,934	3,856
Underground		
exploration	2,536	2,550
Depreciation and		
depletion	322	448
Profit before tax	\$ 3,076	\$ 858
Production Review	1987	1986
Tons milled (000's)	449	508
Grade:	1.39	1.22
% copper oz. gold/ton	0.069	0.087
oz. silver/ton	0.30	
Recovery:		0.27
O/	00.0	
copper, %	96.2 88.4	97.2
copper, % gold, % silver, %	96.2 88.4 81.8	
gold, % silver, %	88.4	97.2 89.6
gold, %	88.4	97.2 89.6
gold, % silver, % Production:	88.4 81.8 11,980 27,299	97.2 89.6 82.1 12,037 39,586
gold, % silver, % Production: lbs. copper (000's)	88.4 81.8	97.2 89.6 82.1
gold, % silver, %  Production: lbs. copper (000's) ounces gold ounces silver  Average price received:	88.4 81.8 11,980 27,299 110,502	97.2 89.6 82.1 12,037 39,586 112,825
gold, % silver, %  Production: lbs. copper (000's) ounces gold ounces silver  Average price received: copper, per lb.	88.4 81.8 11,980 27,299 110,502	97.2 89.6 82.1 12,037 39,586 112,825
gold, % silver, %  Production: lbs. copper (000's) ounces gold ounces silver  Average price received:	88.4 81.8 11,980 27,299 110,502	97.2 89.6 82.1 12,037 39,586 112,825
gold, % silver, %  Production: lbs. copper (000's) ounces gold ounces silver  Average price received: copper, per lb. gold, per oz.  Operating cost,	88.4 81.8 11,980 27,299 110,502 \$1.21 \$587	97.2 89.6 82.1 12,037 39,586 112,825 \$0.85 \$512
gold, % silver, %  Production: lbs. copper (000's) ounces gold ounces silver  Average price received: copper, per lb.	88.4 81.8 11,980 27,299 110,502	97.2 89.6 82.1 12,037 39,586 112,825

The Ansil project proceeded as planned without any serious difficulties during the year. The underground exploration programme which involved development on three levels and extensive diamond drilling was completed during the third quarter. Deepening of the No. 4 production shaft recommenced in September and the last bench was taken in December bringing it to a depth of 1,500 metres. The No. 5 ventilation and service shaft made excellent progress during the year and reached its final depth of 1,347 metres on October 18. During the course of 362 days, this shaft advanced an average of 3.84 metres per day, an excellent achievement.

The revised ore reserve estimates are detailed in the Ore Reserves section. The programme confirmed the grade and areal extent of the orebody. However, the highly variable thickness of the orebody has resulted in a reduction of the initial reserve estimates.

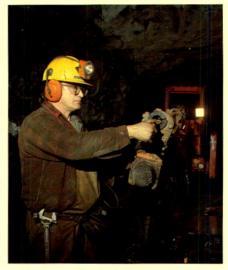
Work is underway now to develop the orebody to bring it into production in early 1989. Considerable use will be made of rock mechanics to assist in the mining method design and layout, given the depth and geometry of the orebody. The production rate will be approximately 450,000 tonnes per year, although this may be modified pending the results of ongoing studies. An integral part of development and production will be further underground exploration, as the potential of this small, high grade deposit is not yet delineated.

During the year \$18.8 million was spent on this project. Total project costs to the end of 1987 were \$44.5 million of which \$13.8 million have been covered by a provincial government grant.

# WINSTON LAKE DIVISION Winston Lake Mine and Mill

By year-end the mill at Winston Lake was virtually completed as scheduled and commissioning commenced in January 1988. By the end of January, 1,700 tonnes of zinc and 90 tonnes of copper concentrates had been produced. This is a notable achievement for all of the employees at Winston Lake. Over the year, the crushing plant and the fine ore bin were erected and the mill building completed. During the latter half of the year, all of the equipment internal to the mill building had been procured and installed. This included the grinding circuit, the conditioners, the zinc and copper flotation circuits, the dewatering thickeners and pressure filters, the hydraulic backfill system and various ancillary services.

Approval was received and construction of the necessary dams was completed for the tailings disposal system. The building housing the engineering offices and mine dry was completed and occupied by the beginning of the second quarter. A Certificate of Approval detailing the operating environmental conditions for the mill tailings effluent was received from the Ministry of the Environment at year-end.



Setting up a jumbo drill at Winston Lake

Underground development with contract mining crews continued until mid-July at which time work was suspended to allow for the installation of coarse ore and waste bins adjacent to the headframe. Upon completion, underground work was resumed in September with Winston Lake crews. By year-end development of the 615, 605 and 585 levels was completed with development of the 565 level and stope preparation underway. To supplement hydraulic backfill from the mill, dry rock and sand fill will be fed underground via a fill raise completed in the first half of the year. The ventilation and emergency escape raise was completed during the same period. Stoping will be by cut and fill and long hole mining methods. Detailed underground drilling has confirmed the reserves as initially estimated, although rapid variations in thicknesses will be encountered both on strike and on dip.

By year end, 118 employees had been hired or identified, some 80% of the total expected number. All professional and

many skilled positions are filled. The only position which has been difficult to fill is that of experienced jumbo operators. Training of operators has begun but this shortage will continue to be a problem into 1988.

It is very unfortunate to report that two fatalities occurred on site during the year. The first, in July, involved a contractor's miner who fell down a raise with his partner when a bracket attaching the hoisting rope to the mechanized stage they were working from broke. The second, in December, involved another contractor's employee in the mill who died after losing his arm in the tail pulley of a conveyor belt. Both accidents have been thoroughly investigated although official findings are still forthcoming. The lost time accident frequency for Winston Lake employees was 6.1 per 200,000 man hours worked, a result which is expected to improve during 1988.

During 1987, \$40.9 million was spent on this project bringing the total amount spent to-date to \$68.0 million, compared to the budgeted total of \$72 million. A net of about \$4.0 million is scheduled to be spent in the first quarter of 1988 to bring the project to commercial production status.

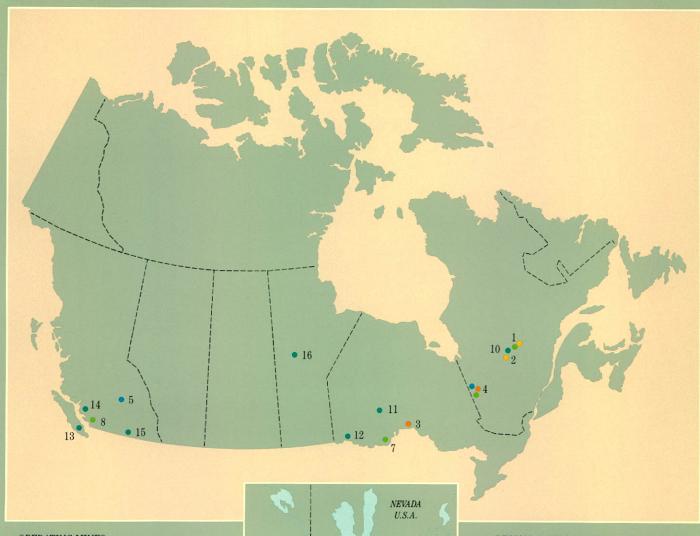
John K. Carrington Vice-President — Operations

ohn Claumpton

Toronto, Canada

February 23, 1988

## LOCATION OF MINNOVA OPERATIONS, EXPLORATION OFFICES AND MAJOR EXPLORATION PROJECTS



## OPERATING MINES

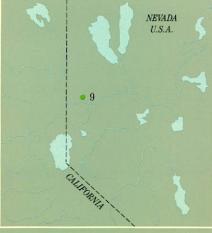
- 1. Opemiska (Chapais) 2. Lac Shortt

## DEVELOPING MINES

- 3. Winston Lake (Schreiber) 4. Lac Dufault and Ansil Noranda

## ADVANCED EXPLORATION PROJECTS

- 5. Samatosum 4. Donalda (Rouyn-Noranda)



#### REGIONAL EXPLORATION OFFICES

- 1. Chapais 4. Rouyn/Noranda 7. Thunder Bay 8. Vancouver 9. Reno

## • EXPLORATION PROJECTS

- 10. Chapais West
  11. Sturgeon Lake
  12. Swell Bay/Mine Center
  13. Mount Sicker
  14. Britannia
  15. Okanagan

- 16. Snow Lake

Two new deposits, Samatosum near Barriere, British Columbia, and Donalda near Rouyn-Noranda, Quebec, were added to the mineral inventory in 1987. Underground exploration of the Ansil deposit resulted in upgrading reserves into the probable category. Reserves as of January 1, 1988 are summarized in the following table:

## ORE RESERVES

Deposit	Tonnes	% Cu	% Zn	$\operatorname{Au}\left(g/t\right)$	Ag(g/t)	Remarks
Winston Lake	3,077,000*	1.0	15.6	0.9	30.9	Total; diluted.
	152,000	0.8	17.2	0.9	31.7	Proven; developed and stockpiled.
	2,012,000	1.1	18.1	1.1	32.9	Probable; good continuity between drill holes
	912,000	0.8	9.9	0.8	26.3	Possible; definition drilling required.
Lac Shortt	1,208,000*	-		4.9		Total; diluted.
	949,000			4.9	_	Proven and probable.
	259,000	_	-	4.9	-	Possible; drill indicated between 500-600 m level.
○ Opemiska	564,000*	1.5		2.4	-	Springer and Cooke; diluted; proven and probable.
o Ansil	1,517,000*	7.2	0.8	1.7	25.9	Diluted; probable; good continuity between under- ground drill holes.
○ Samatosum	600,000*	1.2	3.5	1.8	1,100.0	<b>Total</b> ; undiluted; probable based on good continuity between drill holes.
○ Donalda	730,000*	-		8.6	51-31	Total; undiluted.
	470,000	-	-	8.6	-	Vein No. 1 – possible; interpreted from surface drilling.
	260,000	-		8.6	-	Vein No. 2 – possible; based on drifting and drilling by previous operator.

<sup>\*</sup> Figures in bold face indicate totals.

## DISCUSSION OF RESERVES AND UNDERGROUND EXPLORATION

#### Winston Lake

Underground definition drilling from the lower mine levels confirmed the ore tonnage and grade anticipated from previous work. Potential to increase tonnage exists below the bottom mine level where the deposit remains open in several areas. Further exploration is planned in 1989.

#### Lac Shortt

The decrease in reserves at Lac Shortt is mainly a result of mining. Adjustments in the reserves due to the addition of new zones based on drilling and deletion of non-recoverable pillars resulted in a net gain of 51,000 tonnes before accounting for 1987 production.

A total of \$2.1 million was spent on underground exploration at Lac Shortt. Exploration drilling below the 500 metre level indicates that the main ore zone continues at least to the 1,000 metre level. However, insufficient drill information precludes incorporating in the reserves anything below the 600 metre level. Further development will be required to provide drill access to enable detailing areas below the 600 metre level.

An exploration drift on the 250 metre level to a mineralized zone on the main ore structure west of the shaft was completed in the fourth quarter after delays from high water in-flows. Drilling is in progress. A number of low grade intersections have been cut, but it is too early to evaluate the results.

#### LAC SHORTT

Reserves at Lac Shortt on Jan. 1, 1988 are compared with those at Jan. 1, 1987:

Year	Tonnes	$\operatorname{Au}\left( g/t\right)$
1988	1,208,000	4.9
1987	1,552,000	4.9

#### ANSIL

Reserves based on underground drilling carried out in 1987 are compared with the previous interpreted figure:

Year	Tonnes	%Cu	%Zn	Ag(g/t)	$\mathrm{Au}\left(g/t\right)$
1988	1,517,000	7.2	0.8	25.9	1.7
1987	2,100,000	7.0	0.5	24.0	1.7

#### **OPEMISKA**

Reserves at Cooke and Springer are shown separately and compared with the previous year:

#### · Springer

Year	Tonnes	%Cu	$\operatorname{Au}\left(g/t\right)$
1988	475,000	1.7	2.1
1987	562,000	1.6	2.7

#### · Cooke

Year	Tonnes	%Cu	$\operatorname{Au}\left(g/t\right)$
1988	89,000	0.6	4.1
1987	102,000	1.0	4.1

#### Ansil

Underground definition drilling was carried out during the year and resulted in a reduction of 583,000 tonnes to the mineral inventory with a marginal increase in the reserve grade. The previous estimate was based on the interpretation of widely spaced drill intersections from eleven surface holes. Underground drilling indicated that what was previously interpreted as a single continuous ore lens is in fact three separate, overlapping lenses. The areal extent of the deposit is similar to the original interpretation, but there is a reduction in the overall average thickness.

#### Opemiska

Reserves at Springer and Cooke decreased as a result of mining. However, a total of \$2.5 million was spent on underground exploration that resulted in the addition of some new ore to the reserves. New ore at Springer was found mainly in No. 6 vein and at Cooke in the easterly extension of the main ore zone.

A further agreement was reached with the Ministère de L'Énergie et des Ressources du Québec wherein the provincial government will fund up to 50% of the cost of certain underground exploration work at Opemiska. The programme could provide up to \$1.7 million of assistance through October 31, 1988. Several target areas are identified in both the Springer and Cooke Mines.

### Samatosum/Donalda

Sufficient work has been done to add these deposits to the Company's mineral inventory. Both are discussed in more detail in the exploration section.

Reserves at Donalda occur in two separate veins. At Samatosum, potential exists to add some lower grade tonnage depending on the results of metallurgical work and mine planning.

David H. Watkins Vice-President — Exploration

Toronto, Canada

February 23, 1988



## **EXPLORATION**

## With a record for discovering

new ore deposits which ranks among the best in the industry, Minnova's exploration team will continue to play a strategic role in our plans for future profitability and well-being.

xploration expenditures are directed to maximize the chance of finding high grade ore deposits capable of yielding a high rate of return at any stage of the economic cycle, as well as creating the opportunity of discovering a "world class" deposit that may launch Minnova into the ranks of the major producers. To meet these objectives, Minnova focuses its exploration activity and expertise in volcanic environments with known polymetallic massive sulphide and gold mineralization.

The success of the exploration group is based on technical excellence, flexibility, persistence and the confidence and longterm support of Minnova's directors. A further element in the success is emphasis on innovative and decentralized management that puts decision making in the hands of competent scientists who are working in the field and who are knowledgable about mineral economics and competition. Decentralization is achieved by maintaining autonomous field offices located at strategic sites near existing operations and in areas that are identified as having excellent potential for new developments. Emphasis is placed on close liaison with our mines which serve as a focus for new discoveries as well as natural laboratories to learn more about ore forming processes which are guides to exploration.

Highlights from each of the regional offices are summarized in the following:

## SOURCE OF SURFACE EXPLORATION FUNDS AND EXPENDITURES

Exploration in Canada was unusually active in 1987, fuelled by high gold prices and the availability of funds from flow-through financing. Minnova spent a total of \$16.6 million which was raised as follows:

Amount (\$000's)		
\$10,000		
2,877		
12,877		
3,733		
\$16,610		

Approximately 55% of the total expenditures were directed to exploration for polymetallic massive sulphide deposits and 45% to gold. Expenditures were distributed as follows:

Regional Office Area of Exploration	Expenditure (\$000's)	%
Chapais Quebec: Opemiska and Lac Shortt	\$ 3,957	24
Noranda Quebec: Lac Dufault, Val d'Or, northeast Ontario	5,150	31
Thunder Bay Winston Lake, northwest Ontario, Manitoba	3,172	19
Vancouver British Columbia	3,741	23
Reno Southwest United States	590	3
Total	\$16,610	100

#### CHAPAIS

Exploration from Chapais is oriented primarily towards gold with the objective of replacing and increasing reserves at or near the Opemiska and Lac Shortt mine operations.

Major projects include:

- Chapais West diamond drilling is in progress testing overburden covered gold and base metals targets established by reverse circulation drilling and geophysics.
- Lac Shortt a large property situation with excellent gold potential was established in the area around Lac Shortt during the year. Geological, geophysical and geochemical surveys will lead to drilling in the latter part of 1988.
- Lac Laura an underground ramp to test the grade and continuity of gold mineralization intersected in previous drilling was begun during the year. The program is funded by Messeguay Mines Ltd., which can earn a 49% interest in the project.

#### **NORANDA**

The focus of exploration from the Noranda office continues to be on the Lac Dufault type of massive sulphide deposit. However, gold deposits, which constitute a secondary target, were a source of considerable exploration success with the discovery of an extension of the Donalda No. 1 vein.

 Donalda – diamond drilling discovered an extension of the Donalda No. 1 gold bearing quartz vein. Drill inferred possible reserves in this vein and in a second deeper vein total 730,000 tonnes, grading 8.6 grams of gold per tonne. Dewatering and rehabilitation of the existing shaft are in progress. Underground diamond drilling, drifting and raising in the vein will be carried out in 1988 to ascertain the continuity and grade of mineralization, and to estimate the cost and feasibility of mining. Minnova is operator of the project which is a joint venture between Minnova (65%) and Syngold Exploration Inc. (35%). Funding is proportionate to each party's interest.

 Lac Dufault - geological interpretation and diamond drilling to depths of 1,000 metres continued within five kilometres of the Ansil and Norbec deposits.

#### THUNDER BAY

Exploration directed from Thunder Bay focussed on massive sulphide mineralization in the Winston Lake area, in several selected areas of northwestern Ontario, and in the Snow Lake area of Manitoba.

- Winston Lake no significant mineralization was discovered by surface work outside the Winston Lake mine. Additional drilling is planned in 1988 on stratigraphic targets.
- Sturgeon Lake narrow, high grade zones of zinc rich mineralization were intersected in drilling on a large Minnova property west of Noranda's Mattabi mine "F" zone. A reinterpretation of the district geology has generated significant drill targets on the Sturgeon Lake mine property on

the east side of the camp as well. Additional drilling is planned for both areas in 1988.

- Swell Bay/Mine Center drilling continues to intersect new zones of alteration and anomalous base metal mineralization in this major project area east of Fort Frances. Work will continue.
- Snow Lake the Linda-McKayseff project near Snow Lake, Manitoba has been reactivated as a result of the review and reinterpretation of geological data.

#### VANCOUVER

Exploration in western Canada is primarily for massive sulphide deposits focussing on Vancouver Island, the Britannia area near Squamish and the Barriere area north of Kamloops. Gold is a secondary target in south central B.C. Major projects include:

• Samatosum - this property, formerly held under option from Rea Gold Corporation, is now subject to a joint venture between Minnova (70%) and Rea Gold (30%). Minnova is operator with each party contributing funds in proportion to its interest. Diamond drilling has indicated a mineralized deposit of 600,000 tonnes grading 1,100 grams of silver per tonne, 1.8 grams of gold per tonne, 3.5% zinc, 1.2% copper and 1.7% lead. Metallurgical work is in progress and the feasibility of placing this property into production is being studied. The property is located about 100 kilometres north of Kamloops, near the town of Barriere.

Minnova has a large land holding in this area and is actively pursuing similar targets.

 Mount Sicker - drilling and geological surveys on this project continue to uncover anomalous mineralization and alteration in volcanic rocks that correlate with those that host the Westmin H.W. mine near Buttle Lake. Work will continue.

- Britannia significant additional land was acquired in the Britannia volcanic pendant north of Vancouver. Highly anomalous gold and base metal values associated with hydrothermal alteration in volcanic rocks were intersected in 1987 drilling, providing encouragement for continuing work.
- Okanagan a reconnaissance programme for Tertiary gold mineralization identified several significant targets. A number of properties have been acquired and technical surveys are in progress.

#### RENO

Minnova's wholly-owned subsidiary, Nevcan Exploration Inc., is exploring in the southwestern United States for gold deposits with potential for quick cash flow and low capital requirements. All U.S. projects are carried out in a joint venture with Keradamex Inc., a wholly-owned subsidiary of Kerr Addison Mines Limited. During the first year of the joint venture, a substantial property situation was acquired in several areas in Nevada and California.

David H. Watkins Vice-President — Exploration

Toronto, Canada

February 23, 1988

## TEN YEAR REVIEW OF FINANCIAL DATA

(in thousands)	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Statistics								CONTRACTOR NO		
Ore reserves (tons)†	7,017	2,131	2,485	3,586	3,496	4,799	5,654	6,725	8,544	9,195
Ore milled (tons)	901	1,330	1,521	1,225	1,435	1,409	1,436	1,894	1,900	1,859
Copper produced (pounds)	12,771	30,982	44,868	46,180	55,305	52,642	56,324	69,172	83,547	87,555
Zinc produced (pounds)	501	7,035	19,857	23,707	6,926	2,538	7,591	50,984	91,710	85,337
Gold produced (ounces)	78	107	109	65	53	44	36	44	48	63
Operations										
Net sales	\$55,030	\$70,385	\$74,397	\$55,416	\$56,274	\$ 46,770	\$ 53,746	\$125,818	\$145,117	\$81,952
Operating, administrative and other costs	38,342	50,045	56,414	41,447	44,252	42,973	44,310	50,054	42,518	38,102
Exploration and development expenditures	10,895	9,078	13,025	12,185	16,539	19,529	19,119	15,267	4,735	3,452
Depreciation and amortization	6,622	10,651	11,106	6,811	5,634	4,748	4,544	5,375	8,102	6,987
Income from investments	5,923	7,240	6,423	7,963	8,905	14,379	15,069	12,192	4,520	1,470
Debenture interest expense	838	-	-	-	-	-	-	-	-	-
Income and mining taxes	3,077	2,726	438	1,671	(677)	(3,981)	26	36,120	44,800	16,864
Minority interest	-	-		-	-	-	_	-		2,539
Gain (loss) on disposal of fixed assets investments and other assets	s, 2,078	(473)	549	(296)	726	471	(1,643)	(1,463)	_	_
Net income (loss) (note 6)	\$ 3,257	\$ 4,652	\$ 386	\$ 969	\$ 157	\$ (1,649)	\$ (827)	\$ 29,731	\$49,482	\$15,478
Amount per share*	\$ 0.24	\$ 0.35	\$ 0.03	\$ 0.07	\$ 0.01	\$ (0.13)	\$ (0.06)	\$ 2.29	\$ 3.82	\$ 1.19
Dividend Record			AR ST							Mary 1
Dividends paid	\$ 1,370	\$ 1,354	\$ 1,320	\$ -	\$ -	\$ -	\$ 5,170	\$ 12,970	\$ 7,782	\$ 2,594
Amount per share	\$ 0.10	\$ 0.10	\$ 0.10	\$ -	\$ -	s –	\$ 0.40	\$ 1.00	\$ 0.60	\$ 0.20
Capital Expenditures										
Property, plant and equipment	\$26,554	\$ 9,608	\$ 4,118	\$18,400	\$ 8,428	\$ 1,127	\$ 1,443	\$ 1,608	\$ 3,810	\$ 1,861
Preproduction expenditures	\$33,717	\$16,830	\$ 8,462	\$13,460	\$ 2,629	\$ -	s –	\$ -	\$ 5,826	\$ 3,095
Financial Position										
Working capital	\$91,527	\$79,118	\$81,786	\$74,174	\$95,900	\$105,077	\$106,517	\$111,013	\$ 88,885	\$46,165
Shares outstanding at end of year	13,824	13,564	13,379	12,970	12,970	12,970	12,970	12,970	12,970	12,970
Average shares outstanding in year*	13,636	13,439	13,087	12,970	12,970	12,970	12,970	12,970	12,970	12,970

<sup>†</sup>Ore reserves for 1987 include both Winston Lake and Ansil deposits, but exclude Samatosum and Donalda deposits.

<sup>\*</sup>Based on the weighted daily average number of shares outstanding during the year.

## ACCOUNTING POLICIES

December 31, 1987

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in Canada. The principal accounting policies are summarized hereunder to facilitate review of the consolidated financial statements.

#### A. Basis of consolidation

The consolidated financial statements include the company's share of the assets, liabilities, revenues and expenses of joint ventures and its whollyowned subsidiary, Nevcan Exploration Inc.

#### B. Revenue recognition

Metals contained in concentrates are sold under contracts. Gold bullion is sold on both a spot basis and forward basis with customers located in Canada. Estimated revenues, based upon anticipated metal prices or forward sales commitments, are recognized when the concentrates and bullion are produced. The estimated revenues from metals in concentrates may be subject to adjustment on or before final settlement, usually four months after the date of shipment, to reflect changes in metal market prices and weights and assays. The inclusion in sales of the value of bullion and concentrates on hand is not significant.

#### C. Short-term securities

Short-term securities are recorded at the lower of cost or market determined on an individual basis.

#### D. Valuation of concentrates and bullion

Bullion settlements receivable and concentrates in transit and on hand are valued at estimated realizable value.

#### E. Valuation of supplies

Stores and operating supplies are valued at the lower of average cost and replacement cost.

#### F. Property, plant and equipment

Property, plant and equipment and related expenditures are accounted for as follows:

- (i) Property, plant and equipment and related capitalized preproduction and development expenditures are recorded at cost less applicable investment tax credits and government assistance;
   (ii) Depreciation of property, plant and equipment is provided on the unit-of-production basis over the
- (iii) Preproduction and development expenditures are capitalized until the commencement of commercial production. These costs are written off on the unit-of-production basis over the estimated economic life of the related mine;

estimated economic life of the related mine;

- (iv) Repairs and maintenance expenditures are charged against earnings; major betterments and replacements are capitalized; and
- (v) Upon sale or abandonment, the cost of the fixed assets and the related accumulated depreciation or amortization are removed from the accounts and any gains or losses thereon are taken into income.

#### G. Exploration

Exploration costs incurred to the date of establishing that a property has reserves which have the potential of being economically recoverable are charged against earnings.

#### H. Income and mining taxes

The company follows the deferral method of applying the tax allocation basis of accounting for income and mining taxes. Under this method timing differences between the period when income or expenses are reported for tax purposes and the period when they are recorded in the accounts result in provisions for deferred taxes.

#### I. Retirement plans

Effective January 1, 1987, the company adopted, on a prospective basis, the new recommendations of the Canadian Institute of Chartered Accountants for pension costs. Under the new policy, pension expense or credit includes the amortization, on a straight-line basis, of the difference between the value of the pension fund assets and the actuarial present value of the accrued pension benefits over the expected average remaining service lives of the employee groups covered by the plans. Actuarial valuations are calculated using the "projected benefit" method based on management's best estimates of future interest rates and salary levels. The difference between pension expense or credit and the funding contributions is reflected as a deferred pension asset. The effect of this change on net income for the year was not material.

## J. Flow-through shares

The company issues common shares ("flow-through" shares) from time to time which entitle the subscriber to earn tax deductions in respect of qualifying exploration expenditures made by the company. The portion of the subscription price of such shares which is based on their market value is credited to share capital. The remainder of the subscription price (the "premium") attributable to the tax benefits transferred to subscribers is credited to earnings.

## MINNOVA INC.

(Incorporated under the laws of Quebec)

## CONSOLIDATED STATEMENT OF OPERATIONS

For the year ended December 31, 1987 (with comparative figures for the year ended December 31, 1986)

(\$000's)	1987	1986
Sales:		
Copper	\$15,562	\$26,588
Zinc	306	3,623
Gold	45,476	54,293
Silver	1,040	1,741
	62,384	86,245
Deduct treatment and refining charges	7,354	15,860
Net sales	55,030	70,385
Cost of production	37,349	48,445
	17,681	21,940
Gain (loss) on sale of fixed assets and investments	2,078	(473)
Income from investments	5,923	7,240
	25,682	28,707
Deduct:		
Administrative and general expenses	993	1,600
Exploration and development expenditures	17,550	14,299
Allocated premium on flow-through shares (note 8)	(6,655)	(5,221)
Depreciation and amortization	6,622	10,651
Interest on convertible debentures	838	-
	19,348	21,329
Profit before income taxes	6,334	7,378
Provision for income taxes (note 4)	3,077	2,726
Net income for the year	\$ 3,257	\$ 4,652
Net income per share (note 8)	\$ 0.24	\$ 0.35
		-

(See notes to consolidated financial statements)

## CONSOLIDATED BALANCE SHEET

December 31, 1987 (with comparative figures as at December 31, 1986)

ASSETS (\$000's)	1987	1986
Current:		
Cash and short-term securities, at lower of cost and market value	\$ 87,655	\$ 72,193
Accounts and interest receivable	4,421	4,688
Concentrates and bullion awaiting settlement, in transit and on hand	10,553	7,264
Supplies	5,125	4,940
Total current assets	107,754	89,085
Property, plant and equipment:		
Producing assets -		
Plant and equipment, at cost	69,566	70,718
Less accumulated depreciation	56,481	53,691
	13,085	17,027
Preproduction and development expenditures, at cost less amounts amortized	6,477	8,614
	19,562	25,641
Properties under development, at cost (note 3)	98,674	38,946
	118,236	64,587
Investments and other assets (note 9)	8,912	1,454
	\$234,902	\$155,126

On behalf of the Board:

Ian D. Bayer,

Director

James W. McCutcheon,

Director

## CONSOLIDATED BALANCE SHEET

December 31, 1987 (with comparative figures as at December 31, 1986)

\$ 14,842 1,385	\$ 9,314
1,385	
	653
16,227	9,967
12,511	10,552
65,000	
24,206	19,536
116,958	115,071
141,164	134,607
206,164	134,607
\$234,902	\$155,126
	24,206 116,958 141,164 206,164

#### AUDITORS' REPORT

To the Shareholders of Minnova Inc.:

We have examined the consolidated balance sheet of Minnova Inc. as at December 31, 1987 and the consolidated statements of operations, retained earnings and changes in financial position for the year then ended and have obtained all the information and explanations we have required. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests

and other procedures as we considered necessary in the circumstances.

In our opinion, and according to the best of our information and the explanations given to us and as shown by the books of the company, these consolidated financial statements are drawn up so as to exhibit a true and correct view of the state of the affairs of the company as at December 31, 1987 and the results of its operations and the changes in its financial

position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Clarken Gordon

Chartered Accountants

Toronto, Canada

February 18, 1988

## CONSOLIDATED STATEMENT OF RETAINED EARNINGS

For the year ended December 31, 1987 (with comparative figures for the year ended December 31, 1986)

(\$000's)	1987	1986
Retained earnings, beginning of year	\$115,071	\$111,794
Share issue expense net of deferred tax recovery		(21)
Net income for the year	3,257	4,652
Dividends paid (\$0.10 per share)	(1,370)	(1,354)
Retained earnings, end of year	\$116,958	\$115,071

## CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

For the year ended December 31, 1987 (with comparative figures for the year ended December 31, 1986)

(\$000's)	1987	1986
Cash provided by (used in) operating activities:		
Net income for the year	\$ 3,257	\$ 4,652
Items not affecting cash, primarily depreciation, amortization and deferred income taxes	9,334	14,066
Allocated premium on flow-through shares (note 8)	(6,655)	(5,221)
(Gain) loss on sale of fixed assets and investments	(2,078)	473
	3,858	13,970
Net change in non-cash working capital balances (receivables and inventories, less payables)	(1,692)	6,535
Cash provided by operating activities of prior years		2,382
Cash provided by operating activities	2,166	22,887
Cash provided by (used in) financing activities:		
Issue of common shares, net of issue costs (note 8)	11,325	8,091
Issue of convertible debentures, net of issue costs (note 7)	63,043	
Dividends paid	(1,370)	(1,354)
Cash provided by financing activities	72,998	6,737
Cash used in (provided by) investment activities:		
Expenditures on property, plant and equipment	56,311	26,438
Purchase (sale) of investments and other assets	3,391	(2,691)
Cash used in investment activities	59,702	23,747
Increase in cash during the year	15,462	5,877
Cash and short-term securities, beginning of year	72,193	66,316
Cash and short-term securities, end of year	\$ 87,655	\$ 72,193

(See notes to consolidated financial statements)

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 1987

#### 1. Change of name

By supplementary letters patent dated April 27, 1987, the name of the company was changed from Corporation Falconbridge Copper to Minnova Inc.

#### 2. Accounting policies

The principal accounting policies followed by the company are summarized under the caption "Accounting Policies".

#### 3. Properties under development

- (a) Winston Lake Construction and development of the project are proceeding as planned. Total expenditures to December 31, 1987 amounted to approximately \$68,038,000 and it is anticipated that a further \$4,000,000 will be required to complete the project. The mine is scheduled to commence commercial production in March, 1988.
- (b) Ansil Total project expenditures to December 31, 1987, net of grants totalling \$13,800,000 received from the Ministry of Energy Resources of Quebec, were \$30,636,000. Planned expenditures on the project for 1988 are \$30,000,000 and it is scheduled to commence commercial production in the first quarter of 1989.

#### 4. Income taxes

The provisions for income taxes for the years 1987 and 1986 are analyzed in the following table to show (i) the taxes that would be payable by applying statutory tax rates to the company's pre-tax earnings, and (ii) the taxes actually provided in the accounts:

(\$000's)	1987	1986
Profit before income taxes	\$6,334	\$7,378
Statutory tax rates	50.0%	50.0%
Tax at statutory rates	\$3,167	\$3,689
Adjust for effect of -		
Resource allowance	(1,088)	(1,499)
Depletion allowance	(698)	(927)
Flow-through exploration		
expenditures	1,961	1,566
Other	(265)	(103)
Tax provided in the accounts	\$3,077	\$2,726

#### 5. Retirement plans

The company has retirement plans covering substantially all employees. Based on the most recent actuarial valuation of the plans at January 1, 1987 projected to December 31, 1987, the estimated actuarial present value of accrued pension benefits and the estimated value of the pension fund net assets available to provide for these benefits are as follows:

(\$000's)	1987	1986
Accrued pension benefits	\$10,038	\$ 9,274
Pension fund assets	\$14,530	\$13,894

#### 6. Transactions with related companies

The company is controlled by Kerr Addison Mines Limited ("Kerr") which, at December 31, 1987, owned 50.3% of the outstanding common shares. Kerr, in turn, is related to Noranda Inc. and its affiliated companies ("the Noranda Group"). Details of significant transactions with Kerr and the Noranda Group for the years 1987 and 1986 are set out below:

- (i) **Noranda Inc.** Copper and zinc concentrates and gold bullion sales by the company to Noranda Inc. during 1987 amounted to approximately \$62,384,000 (1986 \$47,216,000).
- (ii) Investment transactions The company participates in a short-term investment pool with the Noranda Group. The pool is operated to provide participating companies with the opportunity to invest or borrow funds on a short-term demand basis within the Noranda Group. During 1987 the company earned interest on these funds amounting to \$187,000 (1986 \$124,000). At December 31, 1987 the company's deposit in the pool was \$1,505,000 (1986 \$3,690,000).

During 1987, the company invested in short-term securities issued by certain affiliated companies. Interest on these investments amounted to \$112,000. At December 31, 1987, the company's investment in such short-term securities totalled \$29,766,000.

(iii) Kerr Addison Mines Limited – For the year 1987, the company was charged \$600,000 by Kerr for management and technical services. In 1986, an amount of \$200,000 was charged by Kerr, covering the period from August 27, 1986 to December 31, 1986.

#### 7. Convertible debentures

The adjustable rate convertible subordinated debentures are unsecured obligations of the company. The debentures were issued on September 30, 1987, mature on September 30, 2007, and pay interest at a rate per annum equal to the greater of (i) 5% and (ii) 1% plus the percentage that two times the dividends paid on the common shares in the six months ended on the date six months prior to the interest payment date is of the conversion price. The debentures are convertible at the holder's option into common shares on or before the earlier of September 29, 2007 and the last business day prior to redemption, at a conversion price of \$34.25 per common share. At any time after September 30, 1992, the company may adjust the conversion price to \$38.00, provided that the company also fixes the interest rate at 6% per annum. The debentures are redeemable at par plus accrued interest after September 30, 1992 and, at any time prior to that date, at 105% of par plus accrued interest if at least 85% of the original principal amount of the debentures have been converted. On September 30, 2007, the company has the option to retire any debentures then outstanding by issuing common shares at the average closing market price for the 30 trading days prior to maturity.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 1987

#### 8. Share capital

The changes in the company's issued and fully paid common shares for the years 1987 and 1986 are set

out below:	1987		1986	
	Shares	Amount (\$000's)	Shares	Amount (\$000's)
Issued and outstanding, beginning of year	13,564,270	\$19,536	13,378,793	\$16,645
Issued as "flow-through" shares to assist in the financing of exploration expenditures – Proceeds of issuance	188,201	10,000	185,477	8,112
Portion allocated to earnings as the value of the tax benefits transferred to subscribers		(6,655)		(5,221)
Issued under employee share purchase and option plans	71,200	1,325		
Issued and outstanding, end of year	13,823,671	\$24,206	13,564,270	\$19,536

At December 31, 1987, 2,060,610 common shares are reserved for future issuance, as follows:

Number of shares

For conversion of the convertible subordinated debentures, at a price of \$34.25 per share	
(note 7)	1,897,810
For issuance under employee option plan, at \$18.625 per share, for periods up to 1994	162,800
	2,060,610

Net income per share calculations have been based on the weighted average number of shares outstanding during each year – 13,636,000 in 1987 and 13,439,000 in 1986. The future potential conversion of debentures and other contingent issuances described above would not have a dilutive effect on net income per share in 1987.

## 9. Investments and other assets

(\$000's)	1987	1986
Investment in Dynatec Mining Limited, at cost	\$3,600	
Loans to employees under share purchase plans	1,322	
Unamortized debt financing expense	1,975	
Employees' housing loans	1,125	\$ 328
Other	890	1,126
	\$8,912	\$1,454
	38,912	01,4

#### 10. Litigation

The Company's 100% ownership of the Winston Lake Mine is subject to a 10% net proceeds of production royalty under the terms of the original 1980 option agreement. In December of 1987, an action was instituted against the company alleging, among other things, that under the option agreement the previous owner is entitled to purchase a 20% participating ownership interest in the mine rather than the 10% net proceeds of production royalty.

The Company's 94.2% ownership interest in the Lac Shortt gold mine is subject to a 7.5% net proceeds of production royalty under the terms of the original 1979 option agreement. In January of 1988, an action was instituted against the Company alleging, among other things, that the annual royalty calculations performed by the company pursuant to the 1979 agreement were not done in accordance with the agreement.

The company believes that its defenses to these actions are meritorious and is vigorously defending each action.

#### 11. Reclassification of comparative figures

Certain of the 1986 comparative figures have been reclassified to conform to the presentation adopted in the current year.

## MINNOVA INC.

#### BOARD OF DIRECTORS

P.-E. Auger, O.C., D.Sc. Consulting Geologist

\*Ian D. Bayer President & Chief Executive Officer Kerr Addison Mines Limited

J.K. Carrington
Vice-President - Operations
Minnova Inc.

J.M. Richard Corbet Corporate Director

P.S. Cross, P.Eng. Consultant

Robert Després, O.C. President DRM Holdings Inc.

\*Jean-H. Gagné, Q.C. Partner Gagne, Letarte, Sirois, Beaudet and Associates

K.C. Hendrick President Noranda Minerals Inc.

†\*James W. McCutcheon, Q.C. Partner Shibley, Righton & McCutcheon

†J.P.W. Ostiguy, O.C. Honorary Chairman Richardson Greenshields of Canada Limited

†\*Alfred Powis, O.C.

Chairman &

Chief Executive Officer
Naranda Inc.

\*Member of Executive Committee

#### OFFICERS

James W. McCutcheon, Q.C. Chairman of the Board

Ian D. Bayer President & Chief Executive Officer

J.K. Carrington

Vice-President - Operations
D.H. Watkins

Vice-President - Exploration A.H. Cross

Treasurer
J.B. Sage
Secretary

P.J. Smith

B.M. McRae Assistant Control

Transfer Agent and Registrar The Canada Trust Company Vancouver, British Columbia Calgary, Alberta, Toronto, Ontario, Montreal, Quebec, and Halifax, Nova Scotia

Shares Listed ("MVA") The Toronto Stock Exchange and The Montreal Exchange

#### EXECUTIVE OFFICE

Suite 3970, P.O. Box 91 Commerce Court West Toronto, Ontario, Canada M5L 1C7

## HEAD OFFICE

Suite 3900 1 Place Ville Marie Montreal, Quebec, Canada H3B 4M7

#### **OPERATIONS**

LAC DUFAULT DIVISION

J. Desrosiers, Mine Manager

R. Fortin, Mine Superintendent

P. Pelletier,

Mill Superintendent
R. Ouellet,

Maintenance Superintendent

L.P. Forget, Project Superintendent

J. McGuire,

Personnel Superintendent

J. Noël, Chief Accountant

B. Salmon, Chief Geologist

R. Samson, Chief Engineer

LAC SHORTT DIVISION

D. Tolgyesi, General Manager – Quebec

A. Coulombe, Chief Geologist

L. Devin, Safety & Personnel Manager

C. Jacob, Mill Superintendent

A. Gelot, Office Manager

L. Gilbert, Chief Engineer

J.C. Imbeault, Mine Superintendent

#### OPEMISKA DIVISION

M. Garon, Mine Manager N. Bédard, Personnel Manager

J.M. Couture,

A. Gelot, Office Manager

A. Lamy, Mill Superintendent

J. Maxwell, Underground Superintendent

J. Nuñes, Chief Geologist

#### WINSTON LAKE DIVISION

T. Dickson,
Mine Manager
W. Procke

W. Brosko, Mine Superintendent

C. Crown, Office Manager R. Jacko,

Chief Mine Engineer

W. Mills,
Mill Superintendent
D. MacNeill,

Chief Geologist
J. Smrke,

J. Smrke, Superintendent, Employee Relations

#### SENIOR EXPLORATION PERSONNEL

A. Davidson, Manager, Western Canada

G. Riverin, Manager, Eastern Canada

Thunder Bay, Ontario

M. Boisvert, Chapais, Quebec P.R. Mattinen,

Sparks, Nevada, U.S.A.

