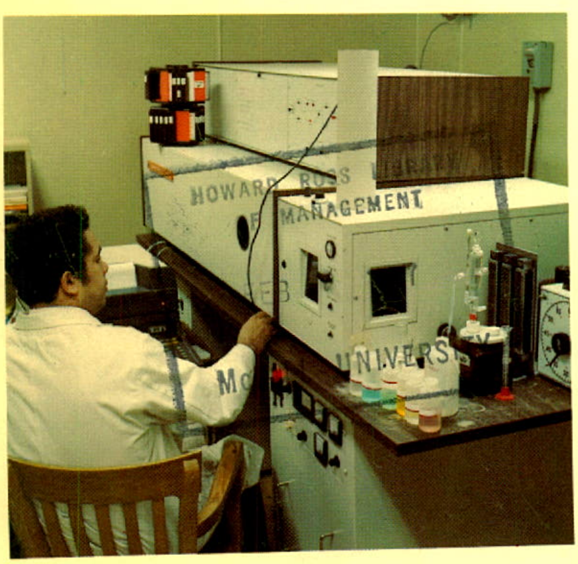
BARRINGER RESEARCH



Annual Report 1975

Barringer Research Inc.

and Subsidiaries

ANNUAL REPORT 1975

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BARRINGER RESEARCH

OFFICERS:

Dr. Anthony R. Barringer, President

Dr. D. Richard Clews, Executive Vice President

Dr. Michael D. Silvester, Vice President

John H. Davies, Vice President

Dr. John L. Walker, Vice President

Robert J. Armstrong, Secretary

Kenneth H. Dalton, Controller

DIRECTORS:

Robert J. Armstrong

Dr. Anthony R. Barringer

Daniel R. Bereskin

Dr. D. Richard Clews

Roger C. Wilson

TRANSFER AGENT:

Chemical Bank, 20 Pine Street,
New York, New York 10015

AUDITORS:

Coopers & Lybrand,
Chartered Accountants,
145 King Street West,
Toronto, Ontario, Canada M5H 1V8

CORPORATE OFFICES:

Barringer Research,
304 Carlingview Drive,
Metropolitan Toronto, REXDALE, Ontario,
Canada M9W 5G2
Phone: (4)6) 677-2491
Cable: Baresearch, Toronto
Telex: 06-968743

CORPORATE COUNSEL:

Blackwell, Law, Treadgold & Armstrong,
Suite 1501, 110 Yonge Street,
Toronto, Ontario, Canada M5C 1V2
Satterlee & Stephens,
277 Park Avenue,
New York, New York 10017

TRADEMARKS

INPUT, COSPEC, E-PHASE,
RADIOPHASE, AIRTRACE, COTRAN
are trademarks of Barringer
Research Limited

Dr. A. R. Barringer, President (left), and Dr. P. B. M. Bradshaw, Exploration Manager, at Society of Exploration Geophysicists Convention in Denver, Colorado.

Chairman's Letter

Dear Shareholder:

I am pleased to report that once again your Company's technical progress was matched by financial gain. Thus in 1975 we maintained the policy declared in 1974. Net profitability for 1975 was 76% greater than for 1974 and scientific advances were significant.

In summary, 1975 sales were $4.25 million compared to $3.81 million in 1974. Income from operations was increased from $290 thousand to $374 thousand. Net profit after taxes increased from $51 thousand to $90 thousand.

Further indications of your Company's improved financial position is reflected in the improved ratio of Current Assets to Liabilities from .95 (1974) to 1.59 (1975); bank indebtedness decreased from $620 thousand to $436 thousand; working capital deficiency in 1974 was $71 thousand compared to a surplus of $588 thousand in 1975 – an improvement of $659 thousand; and long term debt decreased from $185 thousand to $125 thousand.

These results were achieved despite the write-down of $203 thousand in investments which your senior management considered a prudent action in light of the current adverse international climate in the metal mining industry. Certain strong measures were required during 1975 to off-set the worldwide inflation and recession – these included a reduction in production and sales staff by amalgamation of two divisions; increase in financial and technical control of all profit centres; increased marketing effort to reduce the 1974 inventories of instruments; and reorganization of senior and middle management functions. The improved financial situation in 1975 and the reduction in General and Administrative costs from $918 thousand to $888 thousand reflects the success of these measures and your senior management intends to continue with its policy of improved financial performance matched by technical excellence.

Rather than review the divisional performances and achievements, section by section, I propose to discuss aspects of some of the more significant activities during 1975. Divisional operations are described in detail in the Business Background section of the Report.

Airtrace

The AIRTRACE airborne geochemical prospecting system that has been discussed in previous annual reports has continued to remain an area of major corporate endeavour. Surveys with the system are now being offered for all countries with the exception of South Africa by Minsearch Surveys Limited, a joint Company with the Anglo American Mining group in which Anglo holds a 51% interest. In South Africa the AIRTRACE system will be operated for both mineral and hydrocarbon exploration commencing in 1976 through Barringer Surveys Limited, a joint Company with Consolidated Goldfields of South Africa in which BRL holds a minority position. Both Minsearch and Barringer Surveys are licenced under the Barringer Research patents which have now been issued on a world-wide basis and are being supplemented by further patents pending.

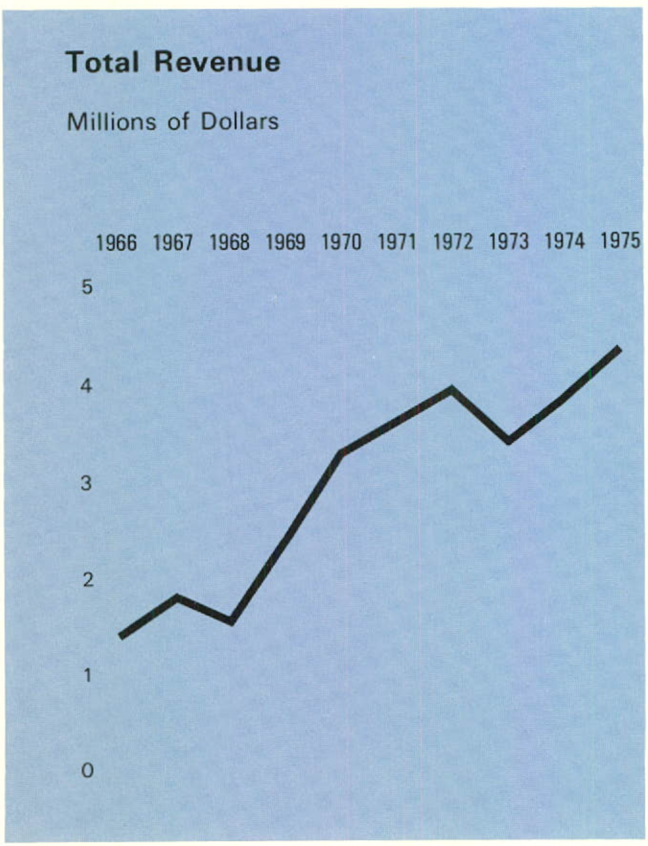
Airborne surveys for minerals have in the past been substantially confined to indirect methods of finding ore: Thus our INPUT system locates metal bearing orebodies by detecting their conductivity. However, although the INPUT system has been by far the most successful airborne prospecting method to date, the vast majority of targets it locates prove to be iron sulphides that have no commercial value.

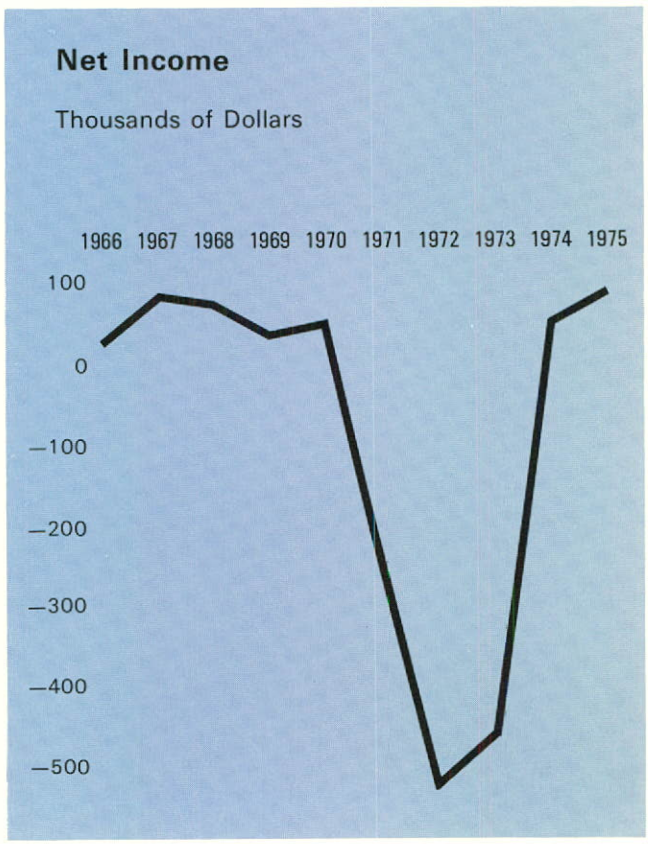
In contrast to airborne geophysical systems, our new AIRTRACE system is able to detect ore directly by the elements contained therein and not by secondary physical properties. The basis for this system is our discovery that aerosols rising from vegetation and soils over mineralization are enriched in a highly localized fashion in the elements contained in the mineralization. We have been able to make use of this discovery by means of an analytical breakthrough that allows us to detect concentrations of far less than one billionth of a gram of material per cubic meter of air for more than 20 elements.

The AIRTRACE system is now in operational use and recent surveys have produced very fine results. Strong multielement responses have been obtained directly over known mineralization and promising new targets for ground follow-up have been located within the survey areas.

A gratifying aspect of the AIRTRACE development is that it is applicable to almost the total range of economical mineral deposits in contrast to earlier airborne geophysical methods which are confined in their application to very limited classes of deposits. Since the system can be used over both vegetated and unvegetated conditions and can be mounted in helicopters, it may be employed in almost any terrain from flat to mountainous and vegetated to arid.

In the light of current results I believe that the AIRTRACE system is destined to provide a major





contribution to the continuing problems of seeking new mineral resources to meet the needs of the world's expanding populations. I therefore foresee extensive use for the system commencing in the near future. However, the introduction of a new concept will take some time as it did with our INPUT system, and I anticipate only a modest growth of royalties during 1976.

Hydrocarbons

During 1975 your Company carried out extensive research on the application of the AIRTRACE system to hydrocarbon exploration. Results have been very satisfactory and fully up to expectations. Our flight tests have demonstrated the feasibility of detecting certain important classes of oil and gas accumulations by rapid airborne reconnaissance using the AIRTRACE system and ancilliary equipment. Complimentary ground geophysical methods have also been tested for use in the follow-up airborne anomalies. Operational surveys have not yet commenced but our research has covered a number of oilfields in different sedimentary basins in the U.S., Australia and Canada.

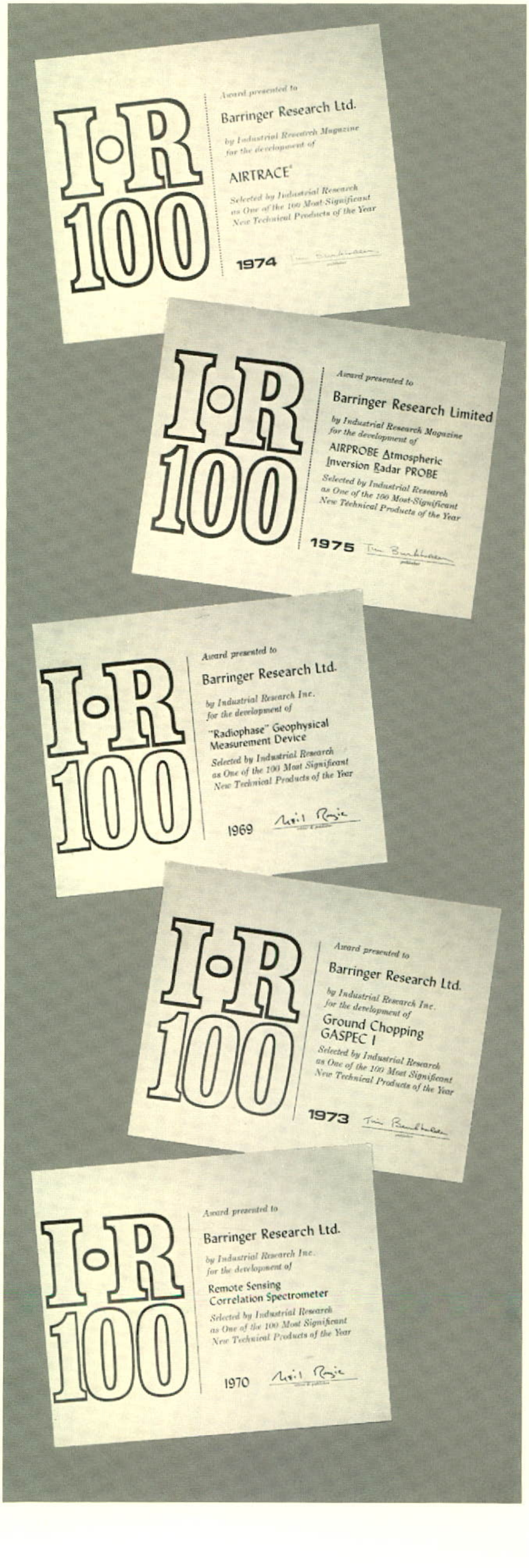
Survey operations will be carried out by Barringer Hydrocarbons Limited, a joint company with the Anglo American Group in which BRL holds a 70% interest.

Other Highlights

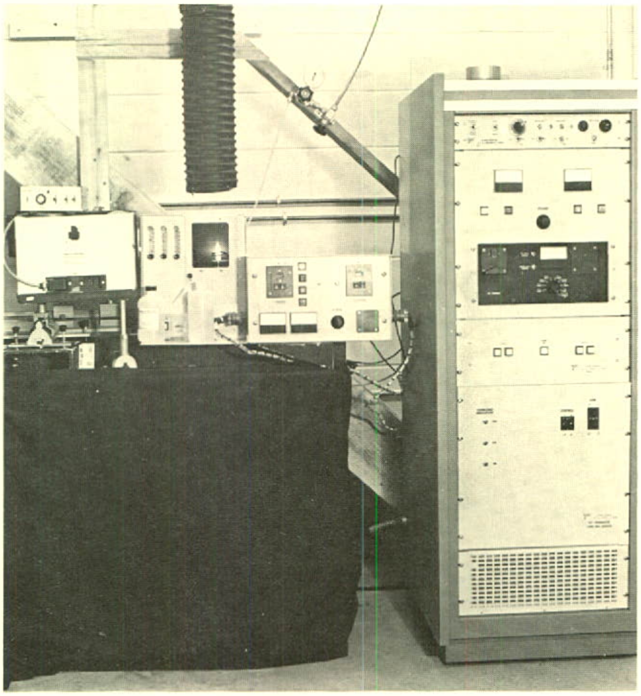
Within the analytical chemistry and biology services division we have successfully established a commercial multielement analytical service using the newly developed inductively coupled plasma technique. Numerous practical problems have had to be overcome and this is probably the first commercial service of its kind. We are now able to offer simultaneous analyses of 32 elements from a single sample with very high sensitivity and good precision. Productivity is high giving the method a very competitive cost advantage.

Research contracts awarded to the analytical chemistry division are enabling us to further develop our expertise of many difficult analytical problems which should extend the viability and scope of our analytical services.

Within our research and development division we have continued to obtain contracts for the furtherance of our optical remote sensing technology and have successfully constructed prototypes of multigas remote sensing equipment for use in spacecraft, aircraft and balloons. Some of this work has been done for NASA in cooperation with the Space Science Laboratory of General Electric and TRW Systems Incorporated of Redondo Beach, California: since we operate from a Canadian base it has been necessary for us to work as subcontractors to U.S. companies in order to obtain access with our technology to U.S. Government contracts.



Digitizing airborne chart recordings



Plasmatherm unit

The commercial acceptance of one of our optical gas remote sensing developments, COSPEC, has taken a gratifying upswing with a run of orders towards the years' end. Furthermore, the U.S. Environmental Protection Agency sponsored tests during the year in which three COSPECs were compared with each other, and also with in-stack gas measurements. Very good results were obtained and we believe that these tests will have a favourable impact on the North American sales of COSPEC, which to date have lagged behind those in the Japanese and European markets.

In our exploration division we have had significant success with our E-Phase airborne resistivity system in locating gravel deposits and we are beginning to gain increased acceptance of the idea of using airborne geophysics for engineering purposes. However, progress has been slow and we have to maintain continued sales pressure in order to expand the market for E-Phase. We have the classic problem of developing sales for a new product that has had no predecessors.

On the geochemical side of the exploration division, a team of professional geochemists are consulting for major exploration programmes in a number of countries and we continue to maintain our rather special position in this field of geochemical consulting and services. We also have a group of geochemists in Brazil who are operating under a contract supported jointly by the Brazilian Government and the Inter American Development Bank, and we are receiving good reports back from this programme.

Licensing

Our INPUT system continues to increase its share of the world market for airborne electromagnetic geophysical surveys and the latest returns from the Society of Exploration Geophysicists indicate that in 1974 INPUT provided more than 60% of all commercial airborne electromagnetic surveys.

Further mineral discoveries have been reported with the INPUT system in 1975 and the total to date is now 14. This is believed to far exceed the discoveries made with any other airborne electromagnetic system. A major contribution to the pre-eminent role achieved by INPUT has been made by our licensees, Questor International Surveys of Toronto and Geoterrex Limited of Ottawa. Our licensees conduct commercial surveys for customers on a contract basis and pay us a royalty and licence fee.

Work is underway on improvements to the INPUT system in order to maintain its competitive edge.

License payments on the AIRTRACE system also provided a significant income during 1975.

Proprietary Systems and Corporate Growth

Your Company has always derived an important segment of its income from royalty payments and licensees throughout its history. Much of this has stemmed from the existence of a strong R & D division within the Company, a group that has been maintained by a continuous flow of outside R & D contracts. This R & D capability is part of the integral

Gathering geochemical ground data in Brazil.

character of our organization and its contribution to the Canadian scene has been recognized by the substantial support in the form of research fellowship salaries that we have received from the National Research Council.

From the business point of view however, we cannot be satisfied if scientific recognition and technical achievements are not matched by a continued growth of income and profits. We have made distinct progress in this direction during the past two years and I wish to increase our efforts to maximize returns from our existing proprietary technology.

The main centres of corporate effort towards this end will be as follows:

1. Upgrading our INPUT electromagnetic equipment to maintain our commercial lead, expand our markets and increase royalty income from this source.
2. Promote the application of the AIRTRACE system to create a royalty cash flow from mileage flown by Minsearch Surveys Limited, Barringer Hydrocarbons Limited, and Barringer Surveys Limited.
3. Enter the hydrocarbon field with our techniques and derive income from our proprietary analytical services.
4. Obtain participation in the mineral and hydrocarbon fields by the use of our proprietary systems where this is feasible.

Our current patent position is encouraging and adequate to support the above objectives. AIRTRACE patents are issuing steadily throughout the world and new electromagnetic prospecting patents are making good progress in the U.S. and other patent offices. A number of new hydrocarbon exploration patents are also in process.

The worldwide shortages and impending shortages of energy resources and strategic minerals provide a situation which should ensure a steady long term demand for your Company's systems and services.

A.R. Barringer

Barringer Research Inc. and Subsidiaries

CONSOLIDATED BALANCE SHEET

As at December 31, 1975 and 1974

ASSETS

	1975	1974
Current assets		
Cash	$ 20,612	$ 28,284
Accounts receivable –		
Trade, less allowance for doubtful accounts, 1975 - $31,975; 1974 - $28,377	751,388	537,073
Corporate joint ventures	225,854	303,094
Inventories (note 2)	545,005	574,730
Deposits, advances and prepaid expenses	22,553	28,512
Income taxes recoverable	26,655	10,000
	1,592,067	1,481,693
Due from shareholder (note 3)	100,000	–
Investments and advances		
Advances to associated company (note 15)	387,625	387,625
Investments and advances (note 4)	337,844	936,038
	725,469	1,323,663
Fixed assets (note 5)	432,653	418,935
Other assets – at cost, less amortization (note 1(d))		
Patents and trademarks	159,392	158,735
	$3,009,581	$3,383,026

LIABILITIES

	1975	1974
Current liabilities		
Bank indebtedness (note 6)	$ 436,343	$ 620,000
Current portion of long-term debt	60,000	60,000
Accounts payable	307,452	315,842
Accrued liabilities	61,206	168,508
Short-term advances –		
Associated company	–	150,000
Other	–	167,362
Excess of billings over selling price of contracts in progress	138,834	70,733
	1,003,835	1,552,445
Deferred income (notes 4 and 15)	722,691	709,833
Long-term debt (note 7) – Convertible subordinated promissory notes, less amount included in current liabilities	125,000	185,000
Other liabilities	22,404	–
	1,873,930	2,447,278

SHAREHOLDERS' EQUITY

	1975	1974
Common stock (notes 8 and 9)		
Authorized		
2,000,000 shares of common stock of 1¢ par value each		
Issued and fully paid –		
977,400 shares (1974 – 867,400 shares)	9,774	8,674
Paid-in surplus (note 8)	1,985,044	1,876,144
Deficit	(852,765)	(942,668)
	1,142,053	942,150
Less: Common stock in treasury – at cost, 88,400 shares	6,402	6,402
	1,135,651	935,748
	$3,009,581	$3,383,026

Barringer Research Inc. and Subsidiaries

CONSOLIDATED STATEMENT OF EARNINGS

For the years ended December 31, 1975 and 1974

	1975	1974
Revenue	$4,252,621	$3,807,331
Costs and expenses		
Cost of goods sold (including royalties of $78,994 (1974 – $65,917))	2,866,170	2,514,019
General and administrative expenses	887,537	918,166
Research and development expenditures (note 1(e))	124,895	85,295
	3,878,602	3,517,480
Operating income	374,019	289,851
Other (income) and expenses		
Write-down of investments	77,672	–
Write-down of advances (note 4(c))	125,000	211,487
Loss on sale of shares in non-associated companies	–	3,003
(Gain) on sale of subsidiary company (note 15)	–	(112,897)
Interest –		
Long-term debt	20,251	33,131
Other – net	67,801	95,187
Other	10,268	18,858
	300,992	248,769
	73,027	41,082
Income tax provision less recovery (note 10)	88,645	10,000
Earnings (loss) before extraordinary item and minority interest	(15,618)	31,082
Minority interest in loss (note 13)	221	–
	(15,397)	31,082
Extraordinary item		
Benefit of loss carry forward	105,300	20,000
Net earnings for the year	$ 89,903	$ 51,082
Average number of shares outstanding (note 14)	847,107	781,087
Earnings (loss) per share (note 14)		
Net earnings (loss) before extraordinary item	($0.02)	$0.04
Extraordinary item	0.13	0.02
Net earnings for the year	$0.11	$0.06

Barringer Research Inc. and Subsidiaries

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

For the years ended December 31, 1975 and 1974

	1975	1974
Funds provided		
From operations –		
Earnings (loss) before extraordinary item	$ (15,397)	$ 31,082
Items not involving funds –		
Benefit of loss carry forward	105,300	20,000
Deferred income	(37,500)	–
Depreciation and amortization	154,840	155,267
Write-down of investments	77,672	–
Write-down of advances	125,000	211,487
Minority interest in loss – net	(221)	–
Gain on sale of subsidiary company less operating losses in current period	–	(74,063)
Other	(687)	26,858
	409,007	370,631
Deferred income	290,441	319,353
Write-down of investment against short-term loan	167,361	–
Issue of shares of common stock	110,000	–
Additions to long-term debt	22,404	–
Disposals of fixed assets	9,536	–
	1,008,749	689,984
Funds applied		
Due from shareholder	100,000	–
Investments and advances	11,060	189,771
Reduction in long-term debt	60,000	60,000
Additions to patents and trademarks	10,980	26,755
Purchases of fixed assets	167,725	37,581
Reclassification of current assets to non-current	–	383,157
Decrease in working capital resulting from sale of subsidiary	–	44,407
	349,765	741,671
Increase (decrease) in funds	658,984	(51,687)
Changes in Components of Working Capital		
Working capital (deficiency) – beginning of year	(70,752)	(19,065)
Decrease in cash	7,672	14,169
Decrease in inventories	29,725	141,354
(Increase) in receivables	(137,075)	(110,472)
Decrease (increase) in other current assets	(10,696)	27,097
(Decrease) in bank indebtedness	(183,657)	(274,282)
(Decrease) increase in other current liabilities	(364,953)	253,821
Increase (decrease) in working capital	658,984	(51,687)
Working capital (deficiency) – end of year	$ 588,232	$ (70,752)

Barringer Research Inc. and Subsidiaries

CONSOLIDATED STATEMENT OF DEFICIT

For the years ended December 31, 1975 and 1974

	1975	1974
Deficit — beginning of year		
As previously reported	$ (971,303)	$(1,022,385)
Adjustment of deficit of prior years (note 16)	28,635	28,635
As restated	(942,668)	(993,750)
Net earnings for the year	89,903	51,082
Deficit — end of year	$ (852,765)	$ (942,668)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 1975

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Principles of consolidation

The accompanying consolidated financial statements comprise the accounts of the company and its active subsidiary companies. All intercompany transactions have been eliminated.

During the year a South African subsidiary, Barringer Research (S.A.) (Proprietary) Limited was incorporated to engage in the business of geochemical analysis.

Investments in various wholly-owned inactive subsidiaries are recorded at nominal value and have not been consolidated.

(b) Principles of translation

The accounts of the foreign subsidiaries have been translated into United States dollars on the following basis:

(i) Income and expenses (other than depreciation and amortization) — at the average rate for the year.

(ii) Depreciation and amortization — at historic rates applicable to the related asset account.

(iii) Current assets and current liabilities at year-end rates.

(iv) Other balance sheet accounts — at historic rates.

A loss on translation of $6,840 has been charged against earnings.

(c) Inventory policies and depreciation

See notes 2 and 5 respectively.

(d) Amortization of Intangibles

Patents and trademarks are amortized over their useful lives which range from five to seventeen years. Amortization amounted to $7,516 in 1975 (1974 — $7,466).

(e) Recognition of income and expense

The company's research and development expenditures are primarily of a continuing nature and are written off as incurred.

Income from the sale of certain licence rights is being accounted for on a cash basis (note 15).

(f) Maintenance and repairs

Maintenance and repairs are charged to expense as incurred; renewals and betterments are capitalized, with adjustment made for the cost of property retired or replaced, less accumulated depreciation and salvage recovered.

2. INVENTORIES

(a) The major categories of inventories are as follows:

	1975	1974
Finished goods	$ 85,495	$ 88,007
Work in progress	157,542	166,795
Materials and supplies	35,302	23,403
Selling price of contracts in progress, less billings	266,666	296,525
	$545,005	$574,730

Finished goods and work in progress inventories are stated at the lower of average cost and net realizable value. Materials and supplies are stated at their actual cost.

(b) Contracts in progress

The percentage-of-completion method of accruing profit on fixed price contracts in progress is used, with anticipated losses being provided for in full.

(c) Holdbacks receivable

Holdbacks receivable of $127,381 (1974 – $103,030) relating to contracts in progress which are billed and unpaid are included in accounts receivable and are expected to be collected within one year.

3. DUE FROM SHAREHOLDER

A new employment agreement between Dr. A. R. Barringer and the company was resolved by the Board of Directors on June 23, 1975. The new agreement provides for an extended term of employment, an increase in remuneration, a purchase of common stock and a loan.

The company sold to Dr. A. R. Barringer 100,000 unregistered shares of common stock ($.01 par value) at a price of $1.00 per share. The consideration for the shares was in the form of a 4% promissory note maturing on June 30, 1985. Payment of the principal and interest of the note is secured by a pledge of the shares which the company holds as collateral.

The quoted market value of the shares issued amounted to $137,500.

Generally accepted accounting principles provide for the inclusion in deferred compensation of $37,500 being the difference between the quoted market price and issue price of the shares and an amount of $23,330 attributable to an imputed interest rate of 8½% rather than the 4% indicated rate.

The amount of deferred compensation of $60,830 so determined would be amortized over the term of Dr. Barringer's employment agreement. The amortization not reflected in the 1975 financial statements is $5,790.

The Board of Directors has determined that the fair market value of the shares is $100,000 and that the interest rate on the note of 4% is fair and just, because the terms of the employment contract are restrictive, Dr. Barringer is both an insider and forms part of control and the shares are unregistered.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. INVESTMENTS AND ADVANCES

In 1972, a subsidiary acquired shares in certain mining exploration companies in return for providing exploration services at cost. These shares have been recorded at an amount equal to the normal profit margin on such exploration services, with a corresponding credit to deferred income pending the realization of the investments. Due to the negative results from exploration, the company's investment in the mining exploration companies of $240,133 has been written off against the corresponding deferred income.

Investments and advances are summarized as follows:

(a) Shares or interest recorded at cost or cost less amounts written off	
Barringer Fiji Limited — 40 shares (a 10% interest) — no quoted value	$ 50
Royex Mining Limited — 170,000 registered shares and 183,400 unregistered shares (a 12% interest — management value of $17,000)	17,000
Barringer Surveys Limited — 490 shares (a 49% interest) — no quoted value	700
Fiji Namosi Project — Unincorporated (a 2½% interest) (note 11(a)(ii))	1
Minsearch Surveys Limited — 25,000 shares (a 50% interest and 49% voting right) — no quoted value	500
	$ 18,251
(b) Advances	
Royex Sturgex Mining Limited — 10% promissory note maturing July 31, 1977	5,059
Minsearch Surveys Limited	314,534
	319,593
	$337,844

(c) Acquisitions during year

On June 30, 1975 a subsidiary purchased all the issued and outstanding shares of Omar Explorations Inc. for $15,000. On October 21, 1975 Omar was dissolved and its assets were transferred to the company. The following is a summary of the transaction:

(i) The company acquired the balance of the issued and outstanding shares of Magenta Explorations Limited ("Magenta") increasing its ownership in Magenta to 100%. No value has been assigned to these shares and the balance of the advances to Magenta of $125,000 has been written off as uncollectible.

(ii) The company acquired 205,486 shares of Royex Mining Limited ("Royex"), (130,000 registered shares and 75,486 unregistered shares) exchangeable for 102,743 shares of Royex Sturgex Mining Limited increasing the company's ownership to 12%. Management's estimate of the net realizable value of the Royex shares acquired is $13,000.

5. FIXED ASSETS

The major categories of fixed assets are as follows:

	1975	1974
Office furniture and equipment	$ 119,852	$ 115,854
Plant and machinery	490,617	361,853
Exploration equipment	337,954	354,708
Equipment for lease	319,920	318,120
Leasehold improvements	98,904	71,505
	1,367,247	1,222,040
Accumulated depreciation	934,594	803,105
Net book value	$ 432,653	$ 418,935

Depreciation is provided on the straight-line basis over the estimated useful lives of the assets, principally four to ten years. Leasehold improvements are being amortized over the terms of the company's leases principally seven to twenty years. Fixed assets are recorded at cost, less applicable depreciation. Depreciation and amortization for the year amounted to $147,324 (1974 — $147,801).

6. BANK INDEBTEDNESS

The bank indebtedness is collateralized by a general assignment of accounts receivable, an assignment of $50,000 in licence monies being received from Minsearch Surveys Limited and a floating charge debenture on all the assets of the company.

The weighted average interest rate during the year was 12.54% (1974 – 9.95%) calculated by dividing the interest paid by the average borrowings. At year end, the average interest rate was 10.75% (1974 – 12%). The maximum and average short-term borrowings outstanding during the year were $588,217 (1974 – $1,152,570) and $456,139 (1974 – $814,564) respectively.

7. LONG-TERM DEBT

The convertible subordinated promissory notes mature serially in semi-annual instalments of $30,000 to December 31, 1978 with the final payment on that date being $35,000. Interest is payable at fluctuating rates, the rate as at December 31, 1975 being 8% (1974 – 10.5%) per annum. These notes are convertible on the basis (subject to adjustment under certain conditions) of $18 principal amount of notes for one share of common stock.

8. COMMON STOCK AND PAID-IN SURPLUS

	Common stock		Paid-in surplus	
	1975	1974	1975	1974
Balance – beginning of year	$8,674	$8,674	$1,876,144	$1,874,289
10,000 shares issued to a former officer of a subsidiary company for a consideration of $10,000	100	–	9,900	–
100,000 shares issued to an officer and director of the company (note 3) for a consideration of $100,000	1,000	–	99,000	–
2,000 shares of treasury stock issued for services rendered in the amount of $2,000	–	–	–	1,855
Balance – end of year	$9,774	$8,674	$1,985,044	$1,876,144

The excess of the consideration received on issue of the treasury stock over the average cost thereof has been credited to paid in surplus.

Shares of common stock reserved for issuance were as follows:

	1975	1974
For stock options –		
Options outstanding and exercisable	96,550	124,900
Available for granting future options	89,150	51,100
For warrants	–	11,000
For conversion of promissory notes	10,278	12,250
	195,978	199,250

9. STOCK OPTIONS

(a) 1968 Qualified Stock Option Plan

In 1968 the company adopted the 1968 Qualified Stock Option Plan covering 30,000 shares of common stock of the company.

Options may be granted to key employees of the company or its subsidiaries at a price not less than the market value of the common stock at the time of the grant of the option. Each option is exercisable two years from the date of the grant, providing the employee remains in the continuous employ of the company or a subsidiary, and expires five years from the date of the grant. Information with respect to this Stock Option Plan is summarized as follows:

	Shares	Amount
Options granted subsequent to 1968 and outstanding at December 31, 1973 ($2.00 to $8.00 per share)	18,550	$81,350
Changes during 1974 – Options cancelled and expired	(5,350)	(29,440)
Options outstanding at December 31, 1974 ($2.00 to $5.50 per share)	13,200	51,910
Changes during 1975 – Options granted at market value ($1.25 per share)	1,000	1,250
Options cancelled and expired	(8,850)	(28,025)
Options outstanding and exercisable at December 31, 1975 ($1.25 to $5.50 per share)	5,350	$25,135

(b) 1970 Qualified Stock Option Plan

On May 13, 1970 the company adopted the 1970 Qualified Stock Option Plan covering 30,000 shares of common stock of the company. Options may be granted to directors, officers and other key employees of the company or its subsidiaries at a price not less than the market value of the common stock at the time of the grant of the option. Each option is exercisable two years from the date of the grant, provided the optionee continues as a director or remains in the employ of the company or a subsidiary, and expires five years from the date of the grant. No optionee may exercise an option while there is outstanding any other stock option previously granted to the optionee. Information with respect to this Stock Option Plan is summarized as follows:

	Shares	Amount
Options granted subsequent to 1970 and outstanding at December 31, 1973 ($2.00 to $3.00 per share)	16,850	$42,700
Changes during 1974 – Options cancelled and expired	(4,150)	(11,300)
Options outstanding at December 31, 1974 ($2.00 to $3.00 per share)	12,700	31,400
Changes during 1975 – Options cancelled and expired	(12,700)	(31,400)
Options outstanding and exercisable at December 31, 1975	Nil	Nil

(c) 1972 Unqualified Stock Option Plan

In 1972 the company adopted an unqualified Stock Option Plan covering 95,000 shares of common stock of the company. Options may be granted to directors, officers and other key employees of the company or its subsidiaries at a price not less than the market value of the common stock at the time of grant of the option. These options are exercisable at varying times from date of grant, provided the optionee continues as a director or remains in the employ of the company or subsidiary, and expire five years from the date of the grant. The company has first right of refusal to reacquire shares purchased under this option plan at a formula price equivalent to 75% of quoted value of the shares. Information with respect to this Stock Option Plan is summarized as follows:

	Shares	Amount
Options granted subsequent to 1972 and outstanding at December 31, 1973 ($5.00 to $5.50 per share)	93,100	$484,550
Changes during 1974 – Options cancelled and expired	(15,100)	(76,050)
Options outstanding at December 31, 1974 ($5.00 to $5.50 per share)	78,000	408,500
Changes during 1975 – Options granted at market value ($1.00 per share)	56,500	56,500
Options exercised ($1.00 per share market value $1.37)	(10,000)	(10,000)
Options cancelled and expired	(64,000)	(334,500)
Options outstanding and exercisable at December 31, 1975 ($1.00 to $5.00 per share)	60,500	$120,500

(d) Options Under Employment Agreements

Under two employment agreements dated October 1, 1972, the company granted options, not under the option plans, to purchase an aggregate of 10,000 shares of common stock of the company at a price of $5.00 per share during the period from October 1, 1972 to September 30, 1977. As at December 31, 1975, these options have not been exercised, and are outstanding.

(e) Other Stock Options

The company also grants stock options to consultants as authorized by the Board of Directors. These options are exercisable two years from the date of grant and expire five years from the date of grant. As at December 31, 1975 20,700 options are outstanding at a price of $1.50 to $5.50 per share.

10. INCOME TAXES

(a) United States income taxes – Barringer Research Inc.

Income taxes in the amount of $16,665 will be recovered on application of the company's current losses of $35,000.

(b) Canadian income taxes – Barringer Research Limited

Income taxes otherwise payable during the year of approximately $146,200 were eliminated by claiming excess depreciation for tax purposes.

As at December 31, 1975, the company had certain timing differences of approximately $550,000 which are available to reduce future years' taxable income.

Utilisation of the timing differences is dependent upon the company, and in particular, a joint venture attaining profitable operations in the future, and upon disposition of certain of the company's investments.

As at December 31, 1975, the company has recorded in the accounts, depreciation and amortization of $744,260 in excess of that claimed for tax purposes.

(c) Canadian income taxes – Barringer Hydrocarbons Limited and Magenta Explorations Limited

Both Barringer Hydrocarbons Limited and Magenta Explorations Limited have certain research, exploration, and development expenses that can be used to reduce taxable income in future years. The amounts of these expenses are approximately $71,000 and $4,506,000 respectively.

Utilization of these expenses is dependent on these companies attaining profitable operations in the future.

(d) Tax rate on earnings

The 1975 provision calculates to an expected rate of 121% on earnings before income taxes. Items accounting for the 1975 and 1974 rates are:

	1975	1974
Normal U.S. Federal tax rate	48%	48%
Losses in international operations for which there is no current income tax benefit	54%	–
Recovery of taxes paid in prior years on application of losses	–	(24%)
Expenses incurred which are non-deductible for tax purposes	15%	–
Other	4%	–
	121%	24%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. COMMITMENTS AND CONTINGENT LIABILITIES

(a) Contingent liabilities

(i) A subsidiary participated in a program under which a portion of the cost of research and development projects involving the development of two instruments for the sensing of air pollution was borne by the Canadian Government, subject to repayment, as explained below, to the extent that the instruments proved to be commercially successful. Contributions of approximately $113,460 were received from the Government in prior years, and have been accounted for in accordance with the company's regular practice with respect to research and development projects. Repayments are being made at a fixed rate per instrument sold or rented; the aggregate amount of such repayments is not to exceed the contributions received with interest thereon. A total of $9,845 has been repaid to date. Such repayments are an element of cost of sales.

(ii) Fiji Namosi Project
The company held a 5% participating interest subject to dilution which was pledged to another participant to secure a loan of $167,362. After dilution to date, the company computes that its interest amounts to fractionally less than 2.5%. The company did not repay the loan and the pledge of the company's interest may be realized upon by the lender, in which case the company will be entitled to an accounting and there may be a contingent liability for any deficiency upon realization. The lender claims that the company's interest was forfeited for non-payment which the company disputes. The company has no liability if the interest is forfeited; if the company's position is upheld and the security is realized upon, there may be a contingent liability for any deficiency upon realization.

(iii) The company is appealing an assessment from Revenue Canada, Taxation, for the 1970 taxation year. If the appeal were disallowed, the income for tax purposes declared by the company would increase by $209,000 for the 1970 taxation year. Consequently the availability to the company of depreciation for tax purposes to reduce future years' income taxes would be reduced by $189,000 (note 10).

(b) Rental expense and lease commitments

(i) Rental and lease expenses for the year amounted to $80,990 (1974 – $82,030).

(ii) Lease commitments on rental premises are as follows:

Year	Rental cost
1976-1980 – annual rental cost	$41,100
1981-1985 – aggregate rental cost	82,500
1986-1987 – aggregate rental cost	16,500

(iii) Equipment and automobile lease commitments total $39,000 in each of the next three years.

12. PENSION PLAN

In 1972, a subsidiary converted its insured pension plan for senior employees to a plan that provides retirement benefits for any employee, equal to 2% of annual salary for each year of employment under the plan. The aggregate cost of the plan was $29,383 in 1975 (1974 – $25,768). Pension costs are funded, and there was no unfunded liability as at December 31, 1975.

13. MINORITY INTEREST

Minority interest in the loss was $22,174. Losses attributable to minority interest in excess of their portion of paid-up capital in the amount of $21,953 have been absorbed as an expense. This amount will be recovered in future years if there are profitable operations of Barringer Hydrocarbons Limited.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. EARNINGS (LOSS) PER SHARE

Earnings (loss) per share are based on the weighted average number of shares outstanding, with shares issuable upon exercise of options, where applicable, during a year being included using the treasury stock method. Shares issuable upon conversion of the convertible promissory notes are not included since such conversion would have an anti-dilutive effect.

15. JOINT VENTURE AGREEMENT

In 1974 Barringer formed a joint venture airborne survey company, Minsearch Surveys Limited ("Minsearch"), with the Canadian subsidiary of a major international mining and mine-financing company. Barringer granted Minsearch licence and know-how rights to use the Barringer-developed and patented AIRTRACE system for mineral exploration on a worldwide basis subject to certain limitations imposed by prior agreement between Barringer and third parties. Barringer's ownership in Minsearch is 50%, and Barringer has a 49% voting position in the company.

The licence and know-how rights were granted for a consideration of $1,800,000 of which $1,050,000 has been received as at December 31, 1975. The final licence payment of $50,000 was received in February, 1976. The remaining $700,000 is due to Barringer out of the net cash flows of Minsearch, and will be used to repay obligations assumed by Minsearch from Barringer, that are discussed in subsequent paragraphs of this note. The payments are to be funded by Barringer's partner in Minsearch who has the right under certain conditions to terminate the agreement at any time without penalty. Accordingly, Barringer is accounting for its share of income from Minsearch on a cash basis. In the event the contract is so terminated, Barringer may purchase Minsearch's assets for a nominal amount.

In addition the agreement provides for Minsearch to purchase certain equipment from Barringer and to fund continuation of a research and development programme related to this equipment. The research and development programme, in the main, is being performed by Barringer. Because of its ownership position in Minsearch, Barringer is accounting for its fee on performance of this work by taking 50% of the fee margin into income and crediting deferred income with the remaining 50%. The licence payments were treated in a similar manner. The deferred income portion will be realized as income when Minsearch attains profitable operations or when the company disposes of its investment in Minsearch. At December 31, 1975 the amount pertaining to Minsearch included in deferred income was $609,794.

Under the terms of the agreement the shares of Barringer's wholly-owned Australian subsidiary, Barringer Geosurveys Pty., Limited ("BGS") were transferred to Minsearch. Barringer recorded a gain on the sale of BGS to Minsearch of $225,794 of which $112,897 was credited to deferred income, and will be realized as income based on the same circumstances as noted above. Under the terms of the agreement, Minsearch obligated itself to repay BGS's debt of $387,625 to Barringer from its future cash flows. BGS is now an inactive company.

Minsearch will also compensate Barringer out of its net cash flow, when realized, an amount of $314,534 for certain airborne survey equipment provided Minsearch at the time of the company's formation.

16. PRIOR PERIOD ADJUSTMENT

The company has adopted the recent recommendations of the Financial Accounting Standards Board which requires that all gains and losses on foreign currency translations be included in determining net earnings for the year.

Consequently a translation gain of $28,635 previously deferred and relating to transactions of years prior to 1974 has been credited to the deficit of those prior years. This adjustment has no effect on the current year's earnings.

17. COMPARATIVE FIGURES

The prior years' comparative figures have been reclassified to conform to the 1975 presentation.

18. FINANCIAL POSITION AND OPERATIONS OF THE PARENT COMPANY

Barringer Research Inc.

BALANCE SHEET

As at December 31, 1975 and 1974

Assets	1975	1974
Current Assets –		
Cash	$ 17,775	$ 3,552
Income taxes recoverable	26,655	10,000
Due from subsidiary company	–	32,350
Due from associated company	11,988	11,988
	56,418	57,890
Due from shareholder (note 3)	100,000	–
Investments and advances –		
Investment in subsidiary company – at equity	242,139	134,269
Advances to subsidiary company	932,215	998,526
	1,174,354	1,132,795
	$1,330,772	$1,190,685
Liabilities		
Current liabilities –		
Accounts payable and accrued charges	10,121	9,937
Current portion of long-term debt	60,000	60,000
	70,121	69,937
Long-term debt (note 7) – convertible subordinated promissory notes, less amount included in current liabilities	125,000	185,000
	195,121	254,937
Shareholders' equity		
Common stock (notes 8 and 9)		
Authorized –		
2,000,000 shares of common stock of 1¢ par value each		
Issued and fully paid – 977,400 shares (1974 – 867,400 shares)	9,774	8,674
Paid-in surplus (note 8)	1,985,044	1,876,144
Deficit	(852,765)	(942,668)
	1,142,053	942,150
Less: Common stock in treasury – at cost, 88,400 shares	6,402	6,402
	1,135,651	935,748
	$1,330,772	$1,190,685

Barringer Research Inc.

STATEMENT OF EARNINGS AND DEFICIT

For the years ended December 31, 1975 and 1974

	1975	1974
Interest earned	$ 42,000	$ 43,000
General and administrative expense	50,071	26,687
	(8,071)	16,313
Other expenses –		
Interest on long-term debt	20,251	33,131
Withholding taxes	6,300	6,450
	26,551	39,581
Loss before income taxes and share of earnings of subsidiaries	34,622	23,268
Income taxes recoverable (note 10(a))	16,655	10,000
Share of earnings of subsidiaries	107,870	64,350
Earnings for year	89,903	51,082
Deficit – beginning of year	(971,303)	(1,022,385)
Adjustment of deficit of prior years (note 16)	28,635	28,635
As restated	(942,668)	(993,750)
Deficit – end of year	$ (852,765)	$ (942,668)

OPINION OF INDEPENDENT PUBLIC ACCOUNTANTS

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145 KING STREET WEST
TORONTO, ONTARIO, CANADA M5H 1V8

To the Shareholders
Barringer Research Inc.

We have examined the consolidated financial statements of Barringer Research Inc. and its subsidiaries for the year ended December 31, 1975. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We previously examined and reported upon the company's 1974 consolidated financial statements.

The company has made advances to Barringer Geosurveys Pty. Limited of $387,625 and to Minsearch Surveys Limited of $314,534 which are to be repaid from the cash flow of Minsearch Surveys Limited (note 15).

In our opinion, subject to the realization of the advances of $702,159 referred to above, these financial statements present fairly the financial position of the companies as at December 31, 1975 and 1974, and the results of their operations and the changes in their financial position for the years then ended, in conformity with generally accepted accounting principles applied, after giving retroactive effect to the change in the method of accounting for foreign currency translation gains as described in note 16, with which we concur, on a basis consistent with that of the preceding year.

Coopers & Lybrand

CHARTERED ACCOUNTANTS

Toronto, Ontario, Canada,
February 20, 1976.

BUSINESS BACKGROUND

ITEM I PRINCIPAL PRODUCTS AND SERVICES

Barringer Research Inc., a Delaware Corporation (the "Registrant"), through its wholly-owned subsidiary Barringer Research Limited, an Ontario Corporation ("BRL"), engages in five principal activities: (1) Research and Development Services; (2) Natural Resource Exploration Ventures and Services; (3) Commercial Products: Instrument Manufacture; (4) Analytical Chemistry and Biology Services; (5) Licensing of Patented Proprietary Products.

(1) RESEARCH AND DEVELOPMENT SERVICES

BRL's Research and Development Division comprises a staff of professional scientists and engineers plus technologists and technicians (13 university graduates) that undertakes R & D work for industrial and Government agency clients in the following disciplines: (i) electro-optics; (ii) electro-magnetics; (iii) magnetics; and (iv) atmospheric physics.

BRL's R & D policy is to undertake projects and programs whose results can be transformed into patented or proprietary commercial products and systems. Generally such projects include design engineering and construction of prototype instruments and systems.

Due to BRL's patent position for significant instruments and instrument systems, and the know-how obtained from previous R & D work associated with these patents, a large portion of the Company's 1975 R & D work was carried out pursuant to agreements funded by major mining and mining-finance companies with which BRL is also partner in joint-ventures. These systems are licensed for commercial operations to the joint companies. (See Sections (1) (a) and (5).)

Other clients for R & D projects underway in 1975 included several private and government organizations, among them:

- General Electric Space Science Laboratories (Philadelphia)
- National Aeronautics and Space Administration (NASA)
- TRW Systems (Los Angeles)
- Atomic Energy of Canada Limited (Canada)
- Department of Energy, Mines and Resources (Canada)
- National Research Council (Canada)
- Department of the Environment (Canada)
- Geophysical Engineering Limited (Toronto)
- Department of National Defence (Canada)
- Department of Communications (Canada)
- Minsearch Surveys Ltd. (Canada)
- Barringer Surveys Ltd. (South Africa)

R & D revenues amounted to $1,610,000 in 1975 ($1,079,000 in 1974).

R & D Products and Techniques

From its R & D projects BRL has developed instruments, instrument systems and techniques in the fields of: (a) airborne exploration, (b) ground exploration and (c) environmental monitoring and process control.

(a) Airborne Exploration Systems

(i) *INPUT:* BRL began as a company with the scientific and commercial success of an R & D effort, the airborne electromagnetic INduced PUlse Transient technique (INPUT). This commercially licensed system now provides BRL with a substantial annual royalty and rental income from its survey applications that are flown under license to Geoterrex Limited (Ottawa) and Questor Surveys Limited (Toronto). (See Section 5).

(ii) *AIRTRACE:* In 1972 BRL began active field testing of a new patented and proprietary geochemical exploration system – AIRTRACE. In 1973 this program continued, and license agreements for commercial use of the system were concluded with Gold Fields of South Africa in certain limited geographic areas. In 1974 BRL formed a joint company, Minsearch Surveys Limited (Minsearch), licensed by BRL to exploit AIRTRACE commercially on a worldwide basis, subject to prior-existing agreements. The AIRTRACE system received a 1974 IR 100 Award as one of the year's one hundred most significant new industrial inventions. (See section 5).

(iii) *RADIOPHASE and E-PHASE:* During 1975 BRL flew commercial surveys with the RADIOPHASE and E-PHASE systems, performing resistivity surveys for locating sand and gravel, bedrock studies, geological mapping under contract to Canadian Provincial agencies, U.S. Governmental agencies and a Canadian mining company.

(iv) *Airborne EM Systems:* Throughout 1975 BRL continued its development work on airborne electromagnetic systems. This work involved continued development of COTRAN a new patented multi-frequency EM system.

(b) Ground Exploration Instruments

BRL in 1975 continued an active development program in magnetometry under contract to Gold Fields. BRL entered the ground, ocean and airborne magnetometer market with a new magnetometer (the M-123 series) as a follow up to the 1973 introduction of its GM-122 portable proton magnetometer. (See Section 2).

(c) Environmental Monitoring/Process Control

BRL's R & D in these fields has produced five techniques and products that are now either manufactured and sold by BRL, or under license from BRL:

(i) *Electro-optical techniques for air pollution monitoring,* including the SO_2/NO_2 correlation spectrometers designated COSPEC II and III and a higher sensitivity unit, the single gas COSPEC IV. (See Section 2).

(ii) *The Barringer gas filter cell correlation spectrometer,* which is capable of remote detection of trace gases in the atmosphere. BRL received a 1973 IR 100 Award for this instrument. A large conceptual study and breadboard development of a space satellite version during 1975 was conducted for TRW Systems. Several smaller contracts for this technology were completed during the year including a stratospheric balloon experiment for the Canadian Government.

(iii) *Electro-optical techniques* for monitoring of nitric acid in water under contract to the U.S. Army continued in 1975.

(iv) *The Barringer-patented correlation interferometer* for the remote sensing of trace gases, continued under subcontract to General Electric Space Science Laboratories (Philadelphia) to NASA at Langley Research Center.

(v) *The Barringer Stack Monitor* now manufactured and sold under license by Combustion Equipment Associates (New York).

(vi) *During the year* BRL initiated a program to develop an airborne laser fluorosensor unit for oil spill detection and classification. This program is under contract to the Canadian Centre for Remote Sensing.

(2) COMMERCIAL PRODUCTS: INSTRUMENT MANUFACTURE

BRL manufactures and markets specialized instrument systems that have been generated by the company's R & D activities.

In 1975 Commercial Products was established as a department of the R & D Division because of lagging sales caused by the adverse worldwide economic climate. Staff was reduced, production curtailed and major sales efforts were made to reduce the 1974 inventory. The small European sales facility in London, England was closed. As a result of these measures revenues were maintained at the 1974 level and operations were profitable.

The principal market for BRL products is Canada, the United States and Europe. Revenues from instrument sales and rentals in 1975 amounted to approximately $553,000 ($560,000 in 1974).

BRL now manufactures patented and/or proprietary remote sensing instruments used chiefly for geophysical exploration for minerals; air pollution/environmental monitoring; and nuclear process control systems. Development and product-engineering costs are expensed as incurred and included in the company's cost of sales.

(a) *Geophysical Instruments:* BRL introduced a new portable proton precession mini-magnetometer (GM-122) in 1973 and in response to strong market demand and customer response upgraded the instrument in 1974. In addition, BRL in 1975 introduced a successor line to BRL's successful Type 104. This new magnetometer (the M-123 series) was marketed in 1975 in airborne, oceanographic and ground versions. In 1975 BRL also introduced a new eight channel light weight recorder for airborne geophysical applications.

(b) *Nuclear Process Control:* Since 1971 BRL has produced and sold three different kinds of heavy water (D_2O) process control instruments. These have been designed for Canadian CANDU-type reactors in nuclear power plants and the heavy water industry to monitor ratios of heavy and light water and detect trace concentrations of heavy water. The original development work was performed in co-operation with the Canadian Atomic Energy Corporation.

(c) *Air Pollution/Environmental Monitoring:* BRL originally developed correlation spectrometric techniques for application in the remote sensing of gases and earth resource exploration. In 1967 the company recognized the air pollution monitoring applications of this technique and BRL began producing an instrument line – the COSPEC series – designated to measure SO_2 and/or NO_2 continuously in the atmosphere. BRL sells these instruments directly from its Toronto location. BRL has an agreement with Japan Spectroscopic Company Limited, Tokyo, (Jasco) under which Jasco is licensed to sell the COSPEC series in Japan and other Southeast Asian countries.

(3) NATURAL RESOURCE EXPLORATION VENTURES AND SERVICES

BRL's current exploration policy is to undertake contract programs for minerals and hydrocarbons that utilize the company's most advanced airborne and ground systems, techniques and expertise.

BRL uses its combined professional experience in geology, geochemistry, geophysics and data processing, backed with laboratory competence in analytical chemistry to undertake large and small mineral exploration programs. During 1975, BRL's staff of professional geologists, geochemists and geophysicists, not only provided exploration consulting, field and airborne services, but also supported specialized R & D in connection with the AIRTRACE programe and research for hydrocarbon and base metal exploration.

BRL has substantially increased its emphasis on consulting, and in 1975 were active in North America, Southern Africa and Brazil. In addition Barringer Research is manager of a large geochemical survey in Goias State, Brazil, as part of a major resources exploration programe funded by the Inter-American Development Bank and the Brazilian Government. During 1975 three of BRL's geochemists moved to Brazil to take charge of this operation which also involves approximately 20 Brazilian geologists and field staff plus 8 laboratory staff.

BRL in 1975 conducted airborne survey operations to locate sand and gravel. In another survey for the U.S. Government the E-PHASE system was used for an environmental impact study and geological mapping to locate competent bedrock for dam building. These contract surveys utilized the BRL patented E-PHASE and RADIOPHASE systems and the BRL airborne magnetometer. The surveys were performed for Canadian Provincial Government agencies, U.S. Federal Government agencies and a Canadian mining company.

The E-PHASE system is now accepted as a routine technique for locating sand and gravel deposits by one Canadian Provincial Government and its general acceptance is increasing with each year of operation. Results from 1975 surveys in Canada confirmed that it had been successful in locating commercial grade gravel deposits, where conventional search methods failed to locate these deposits.

Total revenues obtained from resource exploration consulting, field operations and R & D contract activities amounted to $814,000 in 1975 ($734,000 in 1974).

No new joint venture field exploration programs were undertaken in 1975. Activities continued, however, in geographic areas covered by the field programs managed by BRL in the years 1968 to 1972 in the Fiji Islands and in Central Canada.

Fiji Program: BRL is currently involved in mineral exploration programs in the Fiji Islands through two vehicles: (1) Barringer Fiji Limited and (2) a joint venture with Australian Anglo American Company Limited (AAA) and American Metal Climax, Inc. (AMAX) (the "Namosi Project").

1. *Barringer Fiji Limited (BFL):* BRL incorporated BFL in connection with an agreement with the Government of Fiji for exclusive prospecting rights on the two main Fiji islands, covering all ground except that subject to lease of claims as at July 31st, 1969. BFL was incorporated to assume the rights and responsibilities under such agreement and to carry out the exploration program. American Metal Climax Inc. managed the program in 1975 and 1974. BRL initially acted as technical manager of the program, which was funded by Contifiance S.A. (an affiliate of Roan Selection Trust) in return for an 80 percent interest in BFL.

   Under terms of an agreement with Australian Anglo American *et al.* concluded in 1974, BRL relinquished half of its 20 percent interest in BFL to AAA in return for 0.5 percent increase in equity in the Fiji Namosi Project, bringing its total interest from 4.5 to 5.0 percent (See 2 below), and performance of up to $1,800,000 worth of drilling on the BFL areas. BRL received a fee for its services in assisting conclusion of the agreement. Drilling on BFL ground began in late 1974 and continued in 1975. Results of the drilling to date are not considered encouraging but work is continuing. BRL has no financial obligations for the BFL program.

2. *Australian Anglo American Limited (Namosi Project):* In March 1973 BRL acquired a 4.5 percent interest in a separate Fijian porphyry copper property in the Namosi area of Fiji from AAA. Under terms of the 1974 BFL agreement (See above), BRL received an additional 0.5 percent equity interest in the Namosi project. In 1973 BRL paid $50,000 for its option on this project and an additional $100,000 in 1974 as the final installment on its interest. BRL has also contributed on a pro rata basis approximately $95,000 for the exploration and development expenses. The project is being managed by AMAX and drilling continued in 1975. In light of the very low copper prices during the year and inability to project price increases in the near to medium term future the results of the 1975 drilling cannot be considered encouraging. Active exploration by drilling has been discontinued. BRL did not contribute its pro rated share of exploration expenses and as a result now retains fractionally less than 2.5 percent interest. This interest will continue to dilute if BRL does not contribute to future exploration costs. In view of the uncertain future of this project BRL have deemed it prudent to write-down $75,000 which is approximately the book value assigned to the Namosi project.

Canadian Program: In August 1968, BRL entered into an agreement with TRW Inc. (TRW) that established a joint venture exploration program between BRL and TRW in a large area within the Canadian Provinces of Manitoba, Saskatchewan, Alberta and portions of the Northwest Territories. TRW ceased funding the program in 1972, after reconnaissance and subsequent exploration phases up to but not including diamond drilling.

After termination of funding by TRW, BRL continued acting in 1973 and 1974 on behalf of a Canadian company, Magenta Explorations Limited (Magenta) to secure funding partners for further development work on several drill targets in the Magenta claim areas. Magenta was formed in December 1971 by BRL and Omar Explorations Inc., a Delaware Corporation (Omar) to which TRW has assigned all its exploration rights. After formation of Magenta, BRL's and Omar's rights and interests were assigned to Magenta in return for shares in stock. BRL received a total of 1 million of the 4.5 million shares issued in this exchange.

During 1975 TRW offered BRL the opportunity to purchase all of the shares of OMAR. OMAR's major asset was 205,486 shares of Royex Mining Limited (See below) and BRL's management offered $15,000 for the purchase of OMAR. The offer was accepted and after acquiring ownership of the Royex shares BRL wound up the affairs of OMAR and surrendered its charter. As a result of the purchase of OMAR, BRL now also owns 100 percent equity in Magenta. A third party continued a small exploration program on one Magenta property in 1975 with negative results and although they intend to complete this program in 1976 BRL's management do not expect the results to be favourable. In view of this and taking into consideration the economic and political conditions prevalent in the Canadian mineral exploration industry and industry's response to these conditions, BRL's management has decided to write-down its assigned book value ($125,000) in Magenta.

BRL, through its joint venture with OMAR, obtained shares in an Ontario Company, Royex Mining Limited (Royex). Royex holds interests in a number of claims including a gold property in the Northwest Territories. BRL previously held 147,914 shares in Royex and this was increased to 353,400 as a result of acquiring OMAR. In 1974 the management of Royex and another company, Sturgex Mines Limited (Sturgex) amalgamated the two companies with a new name Royex Sturgex Mining Limited (Royex Sturgex). Royex shares are to be exchanged for Royex Sturgex shares on the basis of 2 Royex shares for 1 Royex Sturgex share. BRL will thus hold 176,700 Royex Sturgex shares which represents about a 12 percent interest.

Royex Sturgex holds a 20 percent interest of which 10 percent is free carried, in a gold property in the Northwest Territories. Some $1 million was spent by a third party on underground development on this property in 1975. This underground work confirmed previous drill results that a moderate tonnage of gold ore is present on the property. Further underground work is planned before decisions will be made on the economic viability of the property.

(4) ANALYTICAL CHEMISTRY AND BIOLOGY SERVICES

During the past year BRL's Analytical Chemistry and Biology Division continued to operate as a separate organizational unit within the company. This separation from the Exploration Division was initially taken to enhance the company's ability to expand and market its capabilities in analytical chemistry and biological services, and serve a wider range of clients. Further expansion and diversification of the division's interests has occurred during 1975.

BRL's Analytical Chemistry and Biology staff consists of professional chemists and biologists – 3 with doctoral degrees – who apply specialized knowledge and instrumentation developed from research and development contracts to routine analytical service work in the following areas:

- geochemistry and geology
- pollution measurement and control
- medicine
- industrial process control
- agricultural and animal studies

In addition to this routine service work the division has made a major effort to enter the field of contract R & D in its areas of expertise.

Analyses are performed on samples submitted by customers on a custom-oriented production basis. In 1975 clients for this service work included most major Canadian and international mining and exploration companies, together with several Canadian Provincial and Federal Resource agencies. During 1975 the division initiated a new analytical service for multi-element analysis. Because of the uniqueness of this RF plasma technique a penetration of the U.S. Government and private analytical service market was achieved. Contract R & D projects were undertaken for several private and government organizations, among them: –

- Canada Centre for Inland Waters (Burlington, Ontario and British Columbia)
- Freshwater Institute (Winnipeg, Manitoba)
- Canadian Wildlife Service (Edmonton, Alberta)
- Water Quality Laboratory (Montreal, Quebec)
- Alberta Research Council
- Saskatchewan Research Council
- Ministere des Richesses Naturelles (Quebec)
- BP (Canada)
- Exxon (Houston, Texas)
- TRW (Los Angeles, California)
- Baird Atomic (Boston, Massachusetts)
- Instrumentation Laboratory (Boston, Massachusetts)
- Conwest Exploration Company Limited (Toronto, Ontario)

The division also provided substantial analytical research for the AIRTRACE program on behalf of the company's joint venture partners.

During 1975 BRL formed a company (H.S.A. Reactors Limited) jointly with Conwest Exploration Company Limited, Toronto and EDT Research, London, United Kingdom, for the commercial exploitation of a new electrochemical reactor. As part of this agreement BRL acquired a 15 percent interest in this company. The Analytical Chemistry and Biology Division obtained a research contract for the reactor development.

Revenues from the division's operations in 1975 amounted to $599,000 ($520,000 in 1974).

BRL has laboratory facilities in Toronto and Whitehorse, Yukon Territories. The Whitehorse laboratory only operates during the summer months, May through October, and is exclusively used for geochemical and geological analysis. The Toronto laboratory operates throughout the year and is a much more versatile installation, where other aspects of the division's operations are carried out in addition to services in the geological field.

(5) LICENSING OF PATENTED PROPRIETARY PRODUCTS

BRL grants licenses for the right to use, manufacture and/or sell certain proprietary techniques and instrumentation developed by BRL, and on which the company holds patents or other rights.

Revenue to BRL in 1975 from its licenses was approximately $675,000 ($790,000 in 1974). The major components of these license fees were derived from agreements regarding the BRL INPUT and AIRTRACE systems.

INPUT System Agreement

BRL has a worldwide exclusive license granted by the purchaser of BRL's INPUT patents to manufacture this airborne geophysical system and to jointly grant sublicenses to others for their use. In 1975, five systems were licensed to two companies engaged in providing contract airborne exploration surveys. The two licensees paid BRL rental for the equipment as well as license fees for every mile flown on survey, amounting to approximately $348,000 in 1975 ($402,000 in 1974).

According to data compiled by the Society for Exploration Geophysicists, INPUT surveys represent approximately 60 percent of the total worldwide survey mileage flown in 1974 using electro-magnetic techniques.

AIRTRACE Exploration Survey Company Joint Ventures

During 1973 and 1974 BRL entered into agreements establishing three airborne exploration survey companies licensed to operate the BRL-developed and patented AIRTRACE system. These companies and their locations are: Barringer Surveys Limited (BSL), Johannesburg; Minsearch Surveys Limited (Minsearch), Toronto; and Barringer Hydrocarbons Limited (BHL), Toronto, Canada.

BSL was incorporated in April 1973 in partnership with Gold Fields of South Africa. BRL holds a 49 percent interest in BSL, which was granted an exclusive license to use BRL's AIRTRACE airborne geochemical prospecting system in Southern Africa for mineral and hydrocarbon exploration. BSL had no operations in 1975. The company is expected to commence operations in 1976 with an aircraft fully outfitted with an AIRTRACE and other airborne systems. When BSL is operating commercially, BRL is to receive royalty income for each line mile of survey flown. In 1974 and 1975 BSL approved programs of airborne EM development specifically tailored to its aircraft. BRL will perform this additional development work.

Minsearch Surveys Limited was incorporated in February 1974 in partnership with Anglo American Corporation of Canada Limited (Amcan), Hudson Bay Mining and Smelting Co., Limited (HBMS), and Minerals and Resources Corporation Limited (Minorco). Minsearch was granted a worldwide exclusive license for the commercial exploitation of AIRTRACE, except for those areas covered by prior geographically limited exclusive agreements. In consideration for the grant of license and know-how rights to Minsearch, BRL received cash in the amount of $550,000 in 1974 and $500,000 in 1975 and accounted for this fee by taking 50 percent into income and crediting deferred income with 50 percent. BRL will also receive additional cash of $50,000 in 1976 and will account for this amount in a similar manner. In addition, BRL is to receive royalties from commercial operations of Minsearch based on the number of line miles flown. BRL has a 50 percent interest in Minsearch, with the Anglo American group holding a controlling vote on the Minsearch Board. Minsearch performed substantial test flying in 1974 and 1975. In 1975 Minsearch commenced commercial surveys and these are expected to increase in 1976.

In addition, BRL in 1974 transferred to Minsearch the shares of its wholly-owned Australian subsidiary company Barringer Geosurveys Pty. Ltd. (BGS) and will be compensated for this transfer from future net cash flows of Minsearch. Inter company loans from BRL to BGS carried in BRL and BR Inc. accounts at $388,000 have been assumed by Minsearch. The non-exclusive agreement that BGS has with Allstate Exploration Pty., Ltd. in Australia for mineral exploration remains in force. Any equity interest received by BGS in deposits discovered using BRL's airborne systems will be held in trust for Minsearch.

BRL also formed a joint company – Barringer Hydrocarbons Limited – with Amcan, HBMS, and Minorco. BHL was granted a license to use the AIRTRACE system for hydrocarbon and geothermal resource exploration. BRL has a 70 percent interest in BHL. BHL was inactive in 1975, but R & D funding was directed toward aspects of the AIRTRACE hydrocarbon R & D program.

Under the terms of its agreement with Minsearch, BSL and BHL, BRL will receive a royalty based on the number of survey line miles flown with the AIRTRACE system when the companies begin commercial operation. The policy of each joint company is expected to be either to negotiate (a) a combination of service fee and participation in any discoveries made; or (b) a participation in any discoveries; or (c) a higher rate of fee in lieu of participation. Minsearch's and BSL's ability to obtain the most favourable fee and participation terms will be a function of conditions prevailing in the mineral exploration industry and the technical strength of the AIRTRACE and its related systems.

ITEM II INFORMATION AS TO LINES OF BUSINESS AND CLASSES OF SIMILAR PRODUCTS AND SERVICES

Total sales and revenues for the years 1971 through 1975 for the major lines of business and classes of products and services, expressed in percent of total revenue as shown in the consolidated statement of operations herein, were as follows:

	1971	1972	1973	1974	1975
Research and Development Services	29	12	15	27	38
Natural Resource Exploration Ventures and Services	52	60	43	22	19
Commercial Products: Instrument Manufacture	8	17	17	17	13
*Analytical Chemistry and Biology	—	—	—	14	14
Licensing	11	11	25	20	16
	100%	100%	100%	100%	100%

The major lines of business contributed to the results of operations as follows:

	1971	1972	1973	1974	1975
Research and Development Services	26	10	2	17	26
Natural Resource Exploration Ventures and Services	42	45	23	9	17
Commercial Products: Instrument Manufacture	5	17	6	15	7
*Analytical Chemistry and Biology	—	—	—	14	11
Licensing	27	28	69	45	39
	100%	100%	100%	100%	100%

These figures, and the changes from 1973, reflect the increase in AIRTRACE-related R & D activities and license fee payments.

Contributions to the results of operations by line of business, as presented above, are based on income before taxes and extraordinary items as shown in the consolidated statement of operations herein before application of the common or corporate costs of general and administrative activities and functions.

**Prior to 1974 figures for analytical services were combined with exploration ventures and services*

ITEM III SUMMARY OF OPERATIONS

Barringer Research Inc. and Subsidiaries

CONSOLIDATED STATEMENT OF EARNINGS (LOSS)

For the Five Years Ended December 31, 1975

	1971	1972	1973	1974	1975
Revenue	$3,557,233	$3,911,927	$3,361,067	$3,807,331	$4,252,621
Costs and expenses					
Cost of goods sold	2,533,355	2,951,854	2,220,613	2,514,019	2,866,170
General and administrative expenses	843,776	844,424	1,059,163	918,166	887,537
Research and development expenditures	276,305	875,966	489,643	85,295	124,895
	3,653,436	4,672,244	3,769,419	3,517,480	3,878,602
Operating income (loss)	(96,203)	(760,317)	(408,352)	289,851	374,019
Other (income) and expenses					
Write-down of investments	–	–	–	–	77,672
Write-down of advances	–	–	–	211,487	125,000
Loss on sale of shares in non-associated companies	32,907	32,417	19,246	3,003	–
(Gain) on sale of subsidiary company	–	–	–	(112,897)	–
Interest –					
Long-term debt	34,200	26,905	30,552	33,131	20,251
Other – net	–	–	48,900	95,187	67,801
Other	(108,924)	7,006	(10,254)	18,858	10,268
	(41,817)	66,328	88,444	248,769	300,992
Earnings (loss) before income taxes and extraordinary items	(54,386)	(826,645)	(496,796)	41,082	73,027
Income tax provision (recovered)	4,500	–	(11,000)	10,000	88,645
Earnings (loss) before extraordinary items and minority interest	(58,886)	(826,645)	(485,796)	31,082	(15,618)
Minority interest in loss	–	–	–	–	221
	(58,886)	(826,645)	(485,796)	31,082	(15,397)
Extraordinary items					
Benefit of tax loss carry forward	4,500	90,000	–	20,000	105,300
Gain on sale of investment in non-associated company, less income taxes	–	212,934	26,000	–	–
	4,500	302,934	26,000	20,000	105,300
Net earnings (loss) for the year	$ (54,386)	$ (523,711)	$ (459,796)	$ 51,082	$ 89,903
Average number of shares outstanding	764,600	764,600	772,624	781,087	847,107
Earnings (loss) per share					
Income (loss) before extraordinary items	($0.08)	($1.08)	($0.62)	$0.04	($0.02)
Extraordinary items	$0.01	$0.40	$0.03	$0.02	$0.13
Net earnings (loss) for the year	($0.07)	($0.68)	($0.59)	$0.06	$0.11

MANAGEMENT'S DISCUSSION AND ANALYSIS OF THE SUMMARY OF OPERATIONS

The following information is provided to further explain certain financial information as shown in the Consolidated Statement of Earnings. (See Note 1 of the Notes to Consolidated Financial Statements for a summary of the accounting policies that are significant in evaluating the results of Barringer's operations).

REVENUES

The decline in revenues from 1972 to 1973 resulted from cessation of a large mineral exploration program that was managed by Barringer and funded by a third party. Termination of funding for this program at the end of 1972 caused a temporary decline in Barringer's manpower utilization levels during the first half of 1973 and therefore a corresponding drop in revenues.

The subsequent growth in revenue from 1973 to 1975 was due in major part to R & D programs undertaken for the joint venture companies (Minsearch Surveys Limited, Barringer Surveys Limited) that are funded by third parties. Further, Barringer experienced higher levels of personnel utilization in 1974 and 1975 than in 1973 in its major service businesses of analytical chemistry and contract research and development.

COSTS AND EXPENSES

The cost of goods sold has been relatively constant at a percentage of total revenue during the last 5 years (i.e., approximately 69 percent). In 1972 the cost of goods sold was higher than this average (i.e., 75 percent) because of the level of exploration field service activities associated with the mineral exploration program noted above. This program was performed at full recovery of cost but without a fee. Therefore the cost of goods sold was substantially higher in proportion to gross revenue for this year than in prior and subsequent years.

Selling, general and administrative expenses increased substantially from 1972 to 1973 because of the management and administration costs of Barringer's Australian subsidiary, Barringer Geosurveys Pty., Ltd., (BGS) and higher professional service fees associated with negotiations of certain agreements with international mining companies in Australia, Republic of South Africa and the United Kingdom.

These costs declined from 1973 to 1975 both absolutely and as a percentage of gross revenue chiefly because of cessation of the bulk of BGS' activities as well as increasing management attention to this cost area.

Research and development expenditures declined substantially in both the periods 1972 to 1973 and 1973 to 1975, both in relative and absolute dollar terms. This decline reflects the termination of substantial in-house funding of important proprietary and patent-oriented R & D work that has enabled the Company to secure certain license and royalty fees for certain of its exploration systems. The decline between 1972 and 1973 is due primarily to the fact that in 1973 the Company secured some extensive but non-recurring external funding for test flying a patented device that reduced the costs of the internally funded R & D. The sharp drop between 1973 and 1975 is principally due to the fact that during 1974 and 1975 the bulk of Barringer's R & D activity was funded by third parties in joint venture companies.

Research and development costs of $124,895 incurred in 1975 and expensed as incurred relate primarily to the unrecovered costs associated with personnel who are in part funded by government grants and are engaged in basic R & D activities that Barringer management believes important to its future patenting position and to R & D funding directed towards aspects of the AIRTRACE hydrocarbon program. This work is not yet funded by third parties, though it is Barringer's intent to secure outside funding whenever it can be negotiated.

OTHER INCOME AND EXPENSES

The write-down of advances referred to in Note 4 of the Consolidated Statements of $125,000 represents a disposition of the remaining advances to a mineral exploration venture (Magenta Explorations Limited) that Barringer had entered into in the years 1969 to 1972. One small exploration program is still proceeding in one of the Magenta claim areas, but Barringer management believes it desirable to write-down the balance of the advances because exploration programs are no longer being undertaken and there is no firm indication of interest by exploration companies of future program activation.

The write-down of investments of $77,672 relates primarily to disposition of the net book value of the Namosi Project. Active exploration by drilling has been discontinued and in view of the uncertain future, BRL deemed it prudent to write-down this investment.

Interest expenses decreased from $95,187 in 1974 to $67,801 in 1975 due to the decrease in Barringer's bank line of credit.

EXTRAORDINARY ITEMS

Tax losses of $187,000 were used in 1972 to reduce income taxes and resulted in an extraordinary credit of $90,000. Similarly, tax loss carry forwards were used to reduce 1974 and 1975 income taxes and gave rise to extraordinary credits of $20,000 and $105,300 respectively. (See note 10 to the Consolidated Statement.)

The gain on sale of investment in a non-associated company in 1972 of $212,934 represents the gain on the sale of shares in a company engaged in the pollution and environmental monitoring business that were acquired by Barringer in exchange for long-term debt and warrants to acquire common shares of Barringer.

ITEM IV MARKET AND DIVIDEND INFORMATION

The principal market for the corporation's securities is the over the counter market. Prices for these securities are quoted in NASDAQ (National Association of Securities Dealers Inc.).

SUMMARY OF MARKET PRICES

	1975		1974	
	High	**Low**	**High**	**Low**
First Quarter	$2.38	$0.50	$6.00	$2.00
Second Quarter	2.13	1.00	3.25	1.50
Third Quarter	2.50	1.13	2.50	1.00
Fourth Quarter	1.50	0.50	2.00	0.38

There were no dividends paid during 1974 or 1975.

FORM 10-K

A copy of the Company's Annual Report on Form 10-K as filed with the Securities and Exchange Commission is available without charge to shareholders by writing to the Secretary of the Corporation at 304 Carlingview Drive, Rexdale, Ontario, Canada, M9W 5G2.

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