

COOL CHIPS™

Cool Chips plc
2004 Annual Report



Fellow Members:

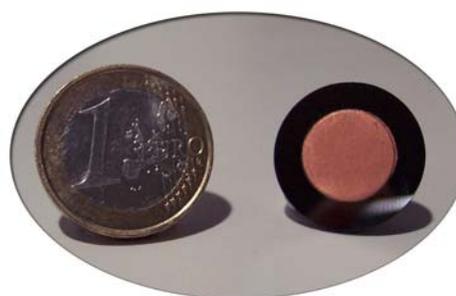
In fiscal 2004 our Company again made major progress toward completing development of working production prototype Cool Chips™ and, hopefully, toward achieving revenues and profits. We are not there yet, but we are getting close.

We have now bought and installed a prototype production facility capable of fabricating 20 Cool Chips per hour and this facility along with two newly installed characterization facilities are up and running. These are major accomplishments which allow us to initially step up the pace of building and testing prototype devices.

When we get the recipe right and can reproduce the results consistently we then complete the on-going work of packaging the prototype production devices for sale to our customers. We have sufficient capacity to generate substantial revenue from the high-value military market. We are now selling chips for 50% down and the balance due upon delivery, with delivery being on a best-efforts basis for \$18,000/Watt though we expect our first actual production sales to be at \$50,000/Watt.

Cool Chips are one of the first transformative technologies to emerge from the nanotechnology revolution. Cool Chips are wafer-thin diodes that are designed to produce cooling or refrigeration more efficiently and at a lower cost than any available technology. They use quantum mechanical electron tunneling as the primary cooling mechanism, and we expect that over the next few decades they will replace virtually every existing cooling, air conditioning, and thermal management technology in use today.

Because of the inherent advantages in cooling across a nanometer-scale gap between two electrodes, Cool Chips are projected to attain efficiencies higher than those previously available in cooling systems, and far greater cooling performance than compressors of the same size and weight. The devices are small, silent, lightweight diodes that are scalable in arrays to meet any thermal management need from cooling a single microprocessor to air-conditioning a factory or home. They can produce cooling for any heat load from hundreds of degrees below freezing temperatures, at projected efficiencies of 55% (conventional compressor systems operate at 40-50% efficiencies).



Prototype Chip shown with a 1-Euro coin for size comparison

Cool Chips will have thousands of applications, from refrigerating cargo ships and air conditioning cars to cooling X-ray machines or laptop computers. They can even be built into clothing to provide personal air conditioning. Already more than 2,000 distinct applications have been identified.

Cool Chips offer a unique cooling solution and the first viable replacement option for the over century-old compressor technology that is now dominant in nearly all forms of thermal management, including air conditioning, refrigeration, chilling, freezing, and cooling. Their potential market is huge; the global cooling industry has sales of more than \$200 billion a year.

Cool Chips offer a number of benefits over traditional systems that will give them a significant competitive advantage in capturing this large and mature market. In addition to their size, weight, and efficiency advantages, Cool Chips have no moving parts, operate silently, require little or no maintenance, and use no environmentally harmful refrigerants and significantly enhance the engineering envelope of applications.

We have been working on new cooling technology since 1994, and on our proprietary, patented thermotunneling technology since 1996. This is a long time for development of a new technology—longer than most companies could tolerate—but we believe the results will be worth the wait. No significant new cooling technology has emerged since Willis Carrier patented the air conditioner compressor system in 1902 based on work done in the 19th Century. We expect that Cool Chips will become the cooling technology of choice, for virtually all applications, for the 21st Century.

Once we have completed working Cool Chips, we expect that direct sale revenues will soon follow. Our discussions with dozens of companies worldwide over the last several years have shown there is intense interest in our technology and intense demand for better cooling solutions. We anticipate that, with working chips, Cool Chips plc will experience one of the fastest demand-growth curves for any new industrial product in history. Indeed, we expect to achieve significant revenue and income within a few months of getting the production technology to where it is consistently repeatable.

Much more information about our Company and our technology, including our complete current business plan including financial projections, full texts of issued patents, and extensive descriptions of our Cool Chips technology, is available on our Website at www.coolchips.gi.

Organization and Operations

Cool Chips plc is a member of the Borealis Family of Companies and is a publicly-traded indirectly majority-owned subsidiary of Borealis Exploration Limited. Borealis owns 5,204,081 of our 8,159,541 outstanding shares, or 64% of our shares. Like our parent and most associated companies, Cool Chips plc is incorporated in Gibraltar.

While our headquarters and legal domicile are in Gibraltar, Cool Chips operates as a virtual company, and the Internet plays a dominant role in our day-to-day work. It is the means by which we manage our businesses, discuss new ideas, and promote ourselves to the outside world. Modern communications technology has allowed us to circumvent the traditional problems associated with working on four continents and twenty time zones. We own facilities and have personnel working for us about which a company of our size would normally only be able to dream.

Cool Chips has consultants around the world, all of whom work over e-mail. Management and technical discussions take place over the Net. We have a continual Board of Directors meeting 24 x 365, with an annual traffic of over 4,000 messages to each board member. Cool Chips has intense direct participatory management, and many consultants to the Company sit in on the board meetings and provide input even though they are not voting members.

Our Website, www.coolchips.gi, makes information about our technology available, and informs shareholders, other companies, and the general public about Cool Chips. As patent offices issue

more patents, a more complete picture of our extensive research efforts will become publicly available on the Website. Additionally, our parent company, Borealis, sends out a weekly update (as well as daily share trades with both Borealis and Cool Chips prices) to shareholders and to all the major news organizations and other interested parties, detailing our ongoing work and progress (please e-mail pr@coolchips.gi if you would like to receive these updates). Through this wide distribution, we are able to keep people better informed than through traditional channels. Your management uses this technology to maintain a close relationship with our shareholders.

This virtual company structure is great to work with and allows us to have many people directly involved in the decision-making processes at Cool Chips. This approach may not be conventional, but the results to date have validated the business structure.

Patents and Intellectual Property

All patents relating to the Cool Chips technology are held by our direct parent, Borealis Technical Limited, which has granted Cool Chips plc an exclusive, perpetual, worldwide license to all of our cooling technologies for all cooling-related applications. Borealis Technical Limited so far has been granted more than 18 U.S. and international patents for its scientific and technological advances in cooling and refrigeration with many more applied for in one form or another. In fiscal 2004 we were granted two new U.S. patents covering the Cool Chips technology.

We expect the courts to eventually declare that many of our Cool Chips patents are “pioneer” patents, reflecting the fact that they are the first patents to be issued in an entirely new field of technology, or represent a technical revolution in a previously defined field. Pioneer patents are those to which most later patents in a field make reference, or on which later patents build by adding new improvements to the field. Because pioneer patents represent the result of groundbreaking scientific discoveries or development, the courts have found that they merit a wide breadth of protection in construing their claims and specifications.

Because our scientific discoveries and technical advances are the core of our business, we are very careful about protecting these assets. Patenting and otherwise protecting our technologies is an important activity at Cool Chips and consumes a considerable portion of our resources. We have developed an extensive library of intellectual property and we intend to protect it vigorously. Our scientific efforts continue apace and the intensity of our discoveries is only gaining momentum and increasing as we get further and further into the nitty gritty of actually producing production prototype Cool Chips.

Financial Report

Management's Discussion and Analysis of 2003 Results

Your Company has no outstanding liabilities and has net assets as of fiscal year-end 2004 of \$6,732,812 in accounts receivable compared to \$5,212,641 in accounts receivable in fiscal year-end 2003.

The total cumulative loss in fiscal 2004 was \$342,000 compared to a cumulative loss of \$298,800 for fiscal 2003. These numbers reflect the management fee paid to Borealis Technical Limited of \$43,200 a year.

All of your Company's expenses are paid by its parent company, Borealis Technical Limited. All Cool Chips plc share sale proceeds go to Borealis Technical Limited which are then owed back to Cool Chips plc as an account receivable.

When Cool Chips plc is a non-development stage company, at that point Cool Chips plc will become free-standing and it will pay its own bills. Basically Cool Chips plc is currently a "kept company", where its balance sheet and financial strength are maximized.

Upon no longer being a development stage company, Cool Chips will pay to Borealis Exploration Limited an 8% gross royalty on all sales and a 50% share of all sublicense revenue. These funds will be used to pay back the funds due Cool Chips plc from its parent company.

It should be noted that Cool Chips plc is also offering to trade one of its own shares for two Borealis Exploration Limited shares. The net effect of these transactions is that the Company ends up with additions to its accounts receivable of the value of the Borealis Exploration shares, and Borealis Technical Limited (acting as agent for Borealis Exploration) has exchanged an open-ended obligation for a fixed-dollar obligation. This is win/win arrangement for both parties.

Your company is very healthy and carries on extensive research, development and sales work worldwide.

Conclusion

We want to thank all our shareholders for their continued help, assistance and support. We feel our future is very bright. With announced working prototype Cool Chips in hand we expect significant high-value military sales. When we have working production-prototype devices and move into small-scale production, the revenue levels will be simply amazing.

World-changing devices that are patented and proprietary can initially command very high prices in military and aerospace applications where size and efficiency instead of cost are supreme.

Thanks for being along for the ride and for your tremendous support in the past when Cool Chips were nothing but an impossible dream.

Cool Chips plc

A handwritten signature in black ink, appearing to read 'Rodney T. Cox', with a large, stylized initial 'R'.

Rodney T. Cox
Chairman and CEO

A handwritten signature in black ink, appearing to read 'Isaiah W. Cox', with a large, stylized initial 'I'.

Isaiah W. Cox
President and COO

Forward Looking Statement

The discussion of the Company's business and operations in this report includes in several instances forward-looking statements, which are based upon management's good faith assumptions relating to the financial, market, operating and other relevant environments that will exist and affect the Company's business and operations in the future. All technical, scientific, and commercial statements regarding technologies and their impacts are based on the educated judgment of the Company's technical and scientific staff. No assurance can be made that the assumptions upon which management based its forward-looking statements will prove to be correct, or that the Company's business and operations will not be affected in any substantial manner by other factors not currently foreseeable by management or beyond the Company's control.

All forward-looking statements involve risks and uncertainty. The Company undertakes no obligation to publicly release the result of any revisions to these forward-looking statements that might be made to reflect the events or circumstances after the date hereof, or to reflect the occurrence of unanticipated events; including those described in this report, and such statements shall be deemed in the future to be modified in their entirety by the Company's public pronouncements, including those contained in all future reports and other documents filed by the Company with the relevant Securities Commissions.

COOL CHIPS
PUBLIC LIMITED COMPANY

Registered No (Gibraltar) 57885

Financial Statements

for the year ended 31 March 2004

COOL CHIPS PUBLIC LIMITED COMPANY

Registered No (Gibraltar) 57885

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COOL CHIPS PUBLIC LIMITED COMPANY

Registered No (Gibraltar) 57885

DIRECTORS AND OFFICERS

Directors

Appointed

Rodney T. Cox	21 Dec 1999	Director, Chairman of the Board, and Chief Executive Officer
Isaiah W. Cox	21 Dec 1999	Director, President, and Chief Operating Officer
Wayne S. Marshall	21 Dec 1999	Director
Peter Vanderwicken	06 Sept 2000	Director
Iris Oren Cox	24 July 2001	Director
Nechama J. Cox	01 Aug 2001	Director
Stuart Harbron	23 July 2002	Director, and Chief Patent Officer
Giulio Pontecorvo	28 Aug 2003	Director
Robert T. Bauer	17 May 2004	Director
Joseph J. Cox	(resigned 27 June 2003)	

Secretary

Fidecs Management Limited
(Formerly known as BDO Fidecs Management Limited)

Registered Office

Montagu Pavillion
8-10 Queensway
Gibraltar

Auditors

Moore Stephens
Suite 5 Watergardens 4
Waterport
Gibraltar

COOL CHIPS PUBLIC LIMITED COMPANY

Registered No (Gibraltar) 57885

DIRECTORS' REPORT

The directors submit their report and the audited financial statements for the year ended 31 March 2004.

Corporate Profile

The Company was incorporated on 23 April 1996 in Gibraltar. On 24 April 2002, the shares of the Company were approved for trading by the NASD on the OTC market in the United States, and now trade on www.pinksheets.com under the Symbol COLCF. The shares have traded between \$5 and \$21 in the past 12 months, closing at \$7 per share.

Activities

The principal activity of the Company is that of researching, developing and building the "Cool Chips" technology.

Results and Review of Business

The results for the year are shown in the profit and loss account on page 5.

Borealis Technical Limited ("Technical"), the parent company, has conducted basic industrial research on its "Cool Chips" technology since 1995, for which it has patents issued and pending. All of the research expenditures to date have been undertaken by Technical and funded by Borealis Exploration Limited, the ultimate parent of the Company. Technical had received deposits in the current and prior years on behalf of the Company towards the issue of shares in the Company.

An Intellectual Property Agreement was signed effective 1 January 1999, whereby Technical has granted the Company the exclusive worldwide rights for sublicensing the "Cool Chips" technology. In consideration for the rights granted to the Company, the Company shall pay Technical an 8% royalty based on net sales of licensed products and services sold by the Company and 50% of all sublicense income. To date the "Cool Chips" technology is still under development such that the Company has not made any related sublicense sales.

The Company has been in the development stage since its inception. The Company intends to retain its sublicense rights granted by Technical. These financial statements have been prepared in accordance with generally accepted accounting principles with the assumption that the Company will be able to realize its assets and discharge its liabilities in the normal course of business rather than through a process of forced liquidation. From inception to 31 March 2004, the Company has lent money raised on its behalf to Technical and Borealis Exploration Limited, who are also in a development stage. The present circumstances therefore raise certain doubts about the ability of the Company to continue as a going concern. The Company is a publicly traded company with a market in its shares that are being traded at prices well above par. This affects its ability to raise funds for future development. Management of the Company has indicated they have no intention to demand repayment of the amounts owing from Technical until the "Cool Chips" technology is being licensed in the marketplace. The Company and Technical are actively working together to negotiate sales or further sublicensing of its technology to various parties, which is expected to generate profitable operations in the future. To the extent additional funds are required, the Company will attempt to raise these funds through future sales of licences, of products and issues of further shares. There can be no assurance that the Company will be successful in its actions. The financial statements do not contain any adjustments that might be necessary if the Company is unable to continue as a going concern.

COOL CHIPS PUBLIC LIMITED COMPANY

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DIRECTORS' REPORT (Continued)

Dividends

There were no dividends declared during the year.

Directors and their Interests

The directors who served during the year were as stated on page 1.

The interest of the directors in the shares of the Company in the year were as follows.

Shares held at 31 March 2004

Rodney T. Cox	234,380
Isaiah W. Cox	22,750
Wayne S. Marshall	73,003
Peter Vanderwicken	10,167
Iris Oren Cox	2,000
Nechama J. Cox	17,275
Stuart Harbron	16,200
Giulio Pontecorvo	6,000
Robert T. Bauer	1,000

Share Options

As of 31 March 2004, there were no share options outstanding.

Directors' Responsibilities

The directors are responsible for preparing financial statements for each financial year which give a true and fair view of the state of affairs of the Company at the end of the financial year and of the profit or loss for that year and which comply with the Gibraltar Companies Ordinance 1930 and the Gibraltar Companies (Accounts) Ordinance 1999. In preparing the financial statements, appropriate accounting policies have been used and applied consistently, reasonable and prudent judgements and estimates have been made, and applicable accounting standards have been followed. The directors are responsible for maintaining adequate accounting records, for safeguarding the assets of the Company, and for preventing and detecting fraud and other irregularities.

Auditor

A resolution to reappoint Moore Stephens will be proposed at the Annual General Meeting.

By order of the Board on 12 August 2004



Isaiah W Cox
Director



Rodney T Cox
Director

COOL CHIPS PUBLIC LIMITED COMPANY

Registered No (Gibraltar) 57885

REPORT OF THE AUDITORS

To the members of Cool Chips Public Limited Company

We have audited the financial statements on pages 5 to 9, which have been prepared under the historical cost convention and the accounting policies set out on page 7.

This report is made solely to the Company's members as a body, in accordance with the Companies Ordinance 1930. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of directors and auditors

As described in the report of the Directors, the Company's Directors and management are responsible for the preparation of financial statements. It is our responsibility to form an independent opinion, based on our audit, on those statements and to report our opinion to you.

Basis of opinion

We conducted our audit in accordance with Auditing Standards issued by the Auditing Practices Board in the United Kingdom. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the directors in the preparation of the financial statements and of whether the accounting policies are appropriate to the Company's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial statements.

In forming our opinion, we have considered the disclosures made in note 1 of the financial statements in connection with the application of the going concern basis and the uncertainty with regards to securing continued financial support. In view of the significance of these matters we consider they should be drawn to your attention but our opinion is not qualified in these respects.

Opinion

In our opinion the financial statements give a true and fair view of the state of affairs of the Company as at 31 March 2004, and of the loss for the year then ended in accordance with Gibraltar Accounting Standards and have been properly prepared in accordance with Gibraltar Companies Ordinance 1930 and the Gibraltar Companies (Accounts) Ordinance 1999.

Gibraltar
12 August 2004


Moore Stephens
CHARTERED ACCOUNTANTS

COOL CHIPS PUBLIC LIMITED COMPANY

Registered No (Gibraltar) 57885

PROFIT AND LOSS ACCOUNT For the year ended 31 March 2004

	Notes	2004 \$	2003 \$
Expenditure			
Administration fees	5	43,200	43,200
		<hr/>	<hr/>
Retained loss for the year		(43,200)	(43,200)
		<hr/>	<hr/>
Retained losses brought forward		(298,800)	(255,600)
		<hr/>	<hr/>
Retained losses carried forward		\$ (342,000)	\$ (298,800)
		<hr/> <hr/>	<hr/> <hr/>

The Company has had no discontinued activities during the year, accordingly, the above result for the Company relates solely to continuing activities.

No statement of recognised gains and losses has been produced as the only recognised gains and losses occurring in the year are those disclosed in the Profit and Loss Account.

The notes on pages 7 to 9 form part of these Financial Statements.

COOL CHIPS PUBLIC LIMITED COMPANY

Registered No (Gibraltar) 57885

BALANCE SHEET as at 31 March 2004

	Notes	2004 \$	2003 \$
Current Assets			
Debtors	2	6,732,811	5,212,641
Total Net Assets		<u>\$ 6,732,811</u>	<u>\$ 5,212,641</u>
Capital and Reserves			
Called up Share Capital	3,4	124,912	123,278
Share Premium Account	3,4	6,949,899	5,388,163
Profit and Loss account	4	(342,000)	(298,800)
Total Shareholders' Funds		<u>\$ 6,732,811</u>	<u>\$ 5,212,641</u>

Signed on behalf of the Board of Directors on 12 August 2004



Isaiah W Cox
Director



Rodney T Cox
Director

The notes on pages 7 to 9 form part of these Financial Statements.

COOL CHIPS PUBLIC LIMITED COMPANY

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NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 March 2004

1. PRINCIPAL ACCOUNTING POLICIES

The financial statements have been prepared in accordance with Gibraltar Accounting Standards and the Gibraltar Companies Ordinance 1930 and the Gibraltar (Companies Accounts) Ordinance 1999 (together, 'Gibraltar GAAP').

a. Basis of accounting

The financial statements are prepared in accordance with the historical cost convention.

b. Reporting currency

The Company's financial statements are presented in US dollars, which is the functional currency for operations.

c. Foreign currency translation

Transactions in foreign currency are recorded at the rate at the date of the transaction. Any monetary assets or liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the balance sheet date.

d. Going Concern

These financial statements have been prepared under the going concern concept, which assumes that the Company will continue in operational existence for the foreseeable future having adequate funds to meet their obligations as they fall due. Further information is set out in the Directors' Report on pages 2 to 3.

e. Cash Flow Statements

The Company meets the size criteria for a small company set by the Companies Act 1985, and therefore, in accordance with FRS1: Cash Flow Statements, it has not prepared a cash flow statement.

f. Taxation

The Company has been granted exempt status under the Gibraltar Companies (Taxation and Concessions) Ordinance. Providing the Company continues to satisfy the criteria for such status, including the payment of an annual government charge of £225 it will not be subject to Gibraltar Corporation Tax for a period of twenty-five years from 24 August 1999, the date on which it was granted such status. There is proposed legislation now pending approval that may change the tax status of the Company in the foreseeable future, although it appears likely that a low or zero rate of taxation will apply under the proposed new structure

COOL CHIPS PUBLIC LIMITED COMPANY

Registered No (Gibraltar) 57885

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 March 2004

2. DEBTORS

	2004 \$	2003 \$
Loan to related party	\$ 6,732,811	\$ 5,212,641

Amounts due from the Company's parent company are non-interest bearing, unsecured, and with no fixed terms of repayment

3. CALLED UP SHARE CAPITAL

	2004 \$	2003 \$
Authorised share capital 10,000,000 ordinary shares @ £0.01 each	\$ 160,000	\$ 160,000

	Number of Shares	Share Capital \$	Share Premium Account \$	Total \$
At 31 March 2002	7,365,460	116,980	2,435,495	2,552,475
Shares issued during the year	629,678	6,298	2,952,668	2,958,966
At 31 March 2003	7,997,138	123,278	5,388,163	5,511,441
Shares issued during the year	162,403	1,634	1,561,736	1,563,370
At 31 March 2004	8,159,541	\$ 124,912	\$ 6,949,899	\$ 7,074,811

The shares issued were partly to raise additional finance (cash received in Technical) and partly to settle amounts owing to creditors by Technical.

COOL CHIPS PUBLIC LIMITED COMPANY

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NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 March 2004

4. RECONCILIATION OF MOVEMENTS IN SHAREHOLDERS FUNDS

	Share Capital \$	Share Premium Account \$	Profit & Loss Account \$	Total \$
At 31 March 2002	116,980	2,435,495	(255,600)	2,296,875
Shares issued during the year	6,298	2,952,668		2,958,966
Loss for the year			(43,200)	(43,200)
At 31 March 2003	123,278	5,388,163	(298,800)	5,212,641
Shares issued during the year	1,634	1,561,736		1,563,370
Loss for the year			(43,200)	(43,200)
At 31 March 2004	\$ 124,912	\$ 6,949,899	\$ (342,000)	\$ 6,732,811

5. RELATED PARTY TRANSACTIONS

In addition to related party transactions disclosed elsewhere in these financial statements, during the year ended 31 March 2004, the Company was charged \$43,200 (2003 - \$43,200) in fees for administrative services provided by Technical.

6. ULTIMATE PARENT COMPANY

The ultimate parent company is Borealis Exploration Limited, a company incorporated in Gibraltar whose registered office is at Montagu Pavillion, 8-10 Queensway, Gibraltar.

7. POST BALANCE SHEET EVENTS

Since the year end the Company has given a commitment to issue up to 20,000 shares to third parties at a price of \$5 per share, contingent upon the outcome of certain events being determined by 2 August 2005.