

GENERAL GEOPHYSICS CO

Form 20-F/A

September 19, 2005

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SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 20-F/A  
AMENDMENT NO. 1

REGISTRATION STATEMENT PURSUANT TO SECTION 12(B) OR (G)  
OF THE SECURITIES EXCHANGE ACT OF 1934  
OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D)  
OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended December 31, 2004

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D)  
OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition Period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 001-14622

**Compagnie Générale de Géophysique**

*(Exact name of registrant as specified in its charter)*

**General Company of Geophysics**

*(Translation of registrant's name into English)*

**Republic of France**

*(Jurisdiction of incorporation or organization)*

**1, rue Léon Migaux**

**91300 Massy**

**France**

**(33) 1 64 47 3000**

*(Address of principal executive offices)*

Securities registered or to be registered pursuant to Section 12(b) of the Act.

**Title of each class**

**Name of each exchange on which registered**

**American Depositary Receipts representing  
Ordinary Shares, nominal value 2 per share**

**New York Stock Exchange**

Securities registered or to be registered pursuant to Section 12(g) of the Act.

**None**

**(Title of class)**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

**10<sup>5</sup>/8% Senior Notes due 2007**

**(Title of class)**

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Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

**11,682,218 Ordinary Shares, nominal value 2 per share**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  Item 18

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**EXPLANATORY NOTE**

This Amendment No. 1 to Compagnie Générale de Géophysique s ( CGG ) Annual Report on Form 20-F for the fiscal year ended December 31, 2004 (this Amendment ) is being filed solely to amend Items 3, 5 and 18. CGG s Annual Report on Form 20-F for the fiscal year ended December 31, 2004 (the Original Filing ) was originally filed with the U.S. Securities and Exchange Commission (the SEC ) on April 18, 2005. This Amendment:

Provides revised and expanded disclosure with respect to Operating Results Before Depreciation and Amortization ( ORBDA ), including a reconciliation to net cash provided by operating activities, in Item 5 and refers to this disclosure in footnote 5 of the selected financial data in Item 3; and

Provides additional disclosure with respect to revenue recognition for both multi-client survey accounting and exclusive survey accounting in Note 1 of Item 18.

For the convenience of the reader, this Amendment includes the complete text of all Items of the Form 20-F, including the complete text of Items 3, 5 and 18, as amended. However, other than the amendments described above, no changes have been made to these or any other Items to the Form 20-F as originally filed. This Amendment continues to speak as of the date of the original filing of the Form 20-F and, except as described above, does not purport to amend or update the information contained in the Form 20-F filed on April 18, 2005, or reflect any events that have occurred after the Form 20-F was filed.

**PRESENTATION OF INFORMATION**

In this annual report, references to United States or U.S. are to the United States of America, references to U.S. dollars , \$ or U.S.\$ are to United States dollars, references to France are to the Republic of France, references to FF are to French francs and references to Euro or are to the single currency introduced at the start of the third stage of the European Economic and Monetary Union pursuant to the Treaty Establishing the European Union.

As our shares are listed on the New-York Stock Exchange (in the form of American Depositary Shares), we are required to file an annual report on Form 20-F with the SEC including our annual financial statements reconciled to accounting principles generally accepted in the United States ( U.S. GAAP ).

For the year ended December 31, 2000, there were no material differences between French generally accepted accounting principles ( French GAAP ) and U.S. GAAP. Beginning with the financial statements for fiscal year 2001, French GAAP differs in certain significant respects from U.S. GAAP.

The differences between French GAAP and U.S. GAAP as they relate to the CGG group, and the reconciliation of net income and shareholders equity to U.S. GAAP, are described in note 28 to our consolidated financial statements.

We adopted International Financial Reporting Standards ( IFRS ) as our primary accounting principles from January 1, 2005, and our first consolidated financial statements under IFRS will be those as of and for the three months ended March 31, 2005. We will present restated financial statements under IFRS as of and for the three months ended March 31, 2004.

Unless otherwise indicated, statements in this annual report relating to market share, ranking and data are derived from management estimates based, in part, on independent industry publications, reports by market research firms or other published independent sources. Any discrepancies in any table between totals and the sums of the amounts listed in such table are due to rounding.

As used in this annual report CGG , we , us and our means Compagnie Générale de Géophysique and its subsidiaries, except as otherwise indicated.

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**FORWARD-LOOKING STATEMENTS**

This annual report includes forward-looking statements, including, without limitation, certain statements made in the sections entitled Business and Operating and Financial Review and Prospects. We have based these forward-looking statements on our current views and assumptions about future events.

These forward-looking statements are subject to risks, uncertainties and assumptions we have made, including, among other things:

changes in international economic and political conditions, and in particular in oil and gas prices;

our ability to reduce costs;

our ability to finance our operations on acceptable terms;

the timely development and acceptance of our new products and services;

the effects of competition;

political, legal and other developments in foreign countries;

the timing and extent of changes in exchange rates for non-U.S. currencies and interest rates;

the accuracy of our assessment of risks related to acquisitions, projects and contracts, and whether these risks materialize;

our ability to integrate successfully the businesses or assets we acquire;

our ability to sell our seismic data library;

our ability to access the debt and equity markets during the periods covered by the forward-looking statements, which will depend on general market conditions and on our credit ratings for our debt obligations; and

our success at managing the risks of the foregoing.

We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this annual report might not occur.

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**PART I**

**Item 1: IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**Item 2: OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**Item 3: KEY INFORMATION**

**Selected Financial Data**

The table below sets forth selected consolidated financial and operating data as of and for each of the five years in the period ended December 31, 2004, and the table should be read in conjunction with, and is qualified in its entirety by reference to, our consolidated financial statements and *Operating and Financial Review and Prospects* included elsewhere in this annual report. The selected financial data for each of the years in the five-year period ended December 31, 2004 have been derived from our audited consolidated financial statements prepared in accordance with French GAAP, which differs in certain respects from U.S. GAAP.

For the year ended December 31, 2000 there were no material differences between French GAAP and U.S. GAAP. Beginning with the financial statements for the year ended December 31, 2001, French GAAP differs in certain significant respects from U.S. GAAP.

We adopted IFRS as our primary accounting principles from January 1, 2005, and our first consolidated financial statements under IFRS will be those as of and for the three months ended March 31, 2005. We will present restated financial statements under IFRS as of and for the three months ended March 31, 2004. Please read *Operating and Financial Review and Prospects* *Trend Information* *Transition to IFRS Accounting* .

The differences between French GAAP and U.S. GAAP as they relate to us, and the reconciliation of net income and shareholders' equity to U.S. GAAP are described in Note 28 to our consolidated financial statements.

The information in the following table and in our consolidated financial statements is presented in euro. We prepared our consolidated financial statements in French francs for periods through December 31, 2000; however, we have adopted the euro as our reporting currency for the periods after January 1, 2001. We have restated our 2000 annual consolidated financial statements in euro at the fixed exchange rate of 1.00 = FF 6.55957. Although our 2000 annual consolidated financial statements depict the same trends as would have been shown had they been presented in French francs, they may not be directly comparable to the financial statements of other companies originally reported in a currency other than the French franc and subsequently restated in euro. A comparison of our financial statements and those of another company that had historically used a reporting currency other than the French franc that takes into account actual fluctuations in exchange rates could be materially different from a comparison of our financial statements and those of another company as translated into euro.

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As of and for the year ended December 31,

2004                      2003                      2002                      2001                      2000

(in millions, except per share and operating data)

**Statement of Operations Data:***Amounts in accordance with French GAAP:*

Operating revenues	692.7	612.4	700.7	802.9	695.3
Cost of operations	(556.0)	(491.0)	(531.4)	(641.7)	(579.9)
Gross profit	136.7	121.4	169.3	161.2	115.4
Research and development expenses, net	(33.5)	(26.9)	(27.1)	(35.3)	(26.9)
Selling, general and administrative expenses	(79.5)	(78.8)	(86.7)	(84.8)	(83.2)
Other revenues (expenses)	12.0	(5.1)	6.1	13.7	13.5
Operating income	35.7	10.6	61.6	54.8	18.8
Interest and other financial income and expense, net	(22.4)	(21.0)	(32.6)	(23.0)	(15.9)
Exchange gains (losses), net	4.4	4.6	7.9	(1.4)	(5.8)
Equity in income of affiliates	10.3	6.5	6.4	8.8	2.6
Income (loss) before income taxes and minority interest	28.0	0.7	43.3	39.2	(0.3)
Income tax expense	(9.7)	(3.1)	(17.4)	(16.8)	(10.6)
Goodwill amortization	(6.2)	(7.7)	(6.3)	(6.5)	(4.7)
Minority interest	(1.0)	(0.3)	(2.2)	(0.2)	3.6
Net income (loss)	11.1	(10.4)	17.4	15.7	(12.0)
Per share amounts: Basic <sup>(1)</sup>	0.95	(0.89)	1.49	1.35	(1.28)
Diluted <sup>(2)</sup>	0.94	(0.89)	1.49	1.35	(1.28)

*Amounts in accordance with U.S. GAAP:*

Operating revenues	709.5	645.6	719.0	795.0	695.3
Operating income	55.0	42.7	81.9	48.6	14.1
Net income (loss)	3.3	3.1	15.1	9.3	(12.0)
Per share amounts:					
Basic common stock holder <sup>(1)</sup>	0.28	0.27	1.29	0.80	(1.28)
Diluted common stock holder <sup>(2)</sup>	0.28	0.26	1.29	0.80	(1.28)

**Balance Sheet Data:***Amounts in accordance with French GAAP:*

Cash and cash equivalents	130.8	96.4	116.6	56.7	60.1
Working capital <sup>(3)</sup>	106.7	81.1	170.9	191.8	180.3
Property, plant and equipment, net	204.5	216.0	265.0	280.7	140.7
Multi-client data library	124.5	145.0	127.1	91.9	77.5
Total assets	939.6	879.4	1,024.7	1,014.4	839.3
Gross debt <sup>(4)</sup>	267.2	232.4	307.8	279.5	251.8
Shareholders' equity	395.7	396.6	437.5	462.8	320.7



**Table of Contents****As of and for the year ended December 31,**

	2004	2003	2002	2001	2000
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**(in millions, except per share and operating data)***Amounts in accordance with U.S. GAAP:*

Total assets	975.8	924.2	1,036.8	1,008.0	839.3
Gross debt <sup>(4)</sup>	266.5	232.4	307.8	279.5	251.8
Shareholders' equity	396.4	413.4	431.0	456.4	320.7

**Other Historical Financial Data and Ratios:***Amounts derived from French GAAP data:*

ORBDA <sup>(5)</sup>	165.4	162.3	210.1	200.5	150.5
Capital expenditures <sup>(6)</sup>	51.7	44.4	130.6	55.0	39.5
Investments in multi-client data library	51.1	109.7	130.1	78.8	92.5

Total Debt	270.0	235.6	318.3	285.7	264.5
Net Debt <sup>(7)</sup>	139.2	139.2	201.7	229.0	204.4
Total Debt/ORBDA <sup>(5)</sup>	1.63x	1.45x	1.51x	1.42x	1.76x
Net Debt <sup>(7)</sup> /ORBDA <sup>(5)</sup>	0.84x	0.86x	0.96x	1.14x	1.36x
ORBDA <sup>(5)</sup> /net interest expense <sup>(8)</sup>	7.38x	7.73x	6.44x	8.72x	9.47x

*Amounts derived from U.S. GAAP data:*

EBITDA <sup>(9)</sup>	172.4	190.1	277.1	195.2	158.1
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**Operating Data (at end of period):**

Land crews in operation	8	12	14	12	20
Streamers in operation	39	42	42	48	30
Data processing centers in operation	26	26	26	26	25

- (1) Basic per share amounts have been calculated on the basis of 11,681,406 issued and outstanding shares in 2004, 11,680,718 issued and outstanding shares in 2003 and 2002, 11,609,393 issued and outstanding shares in 2001 and 9,389,214 issued and outstanding shares in 2000.
- (2) Diluted per share amounts have been calculated on the basis of 11,818,603 issued and outstanding shares in 2004, 11,760,630 issued and outstanding shares in 2003, 11,680,718 issued and outstanding shares in 2002, 11,609,393 issued and outstanding shares in 2001 and 9,485,053 issued and outstanding shares in 2000. In 2002 and 2001, the effects of stock options were not dilutive (as a result of applying the treasury stock method).
- (3) Consists of trade accounts and notes receivable, inventories and work-in-progress and other current assets less trade accounts and notes payable, accrued payroll costs, income tax payable, advance billings to customers and other current liabilities.
- (4) Gross debt means total long-term debt, including current maturities, capital leases and accrued interest but excluding bank overdrafts.

- (5) A discussion of ORBDA (Operating Result Before Depreciation and Amortization, previously denominated Adjusted EBITDA), including a reconciliation to net cash provided by operating activities, is found in Item 5: Operating and Financial Review and Prospects Liquidity and Capital Resources .
- (6) Capital expenditures is defined as purchases of property, plant and equipment plus equipment acquired under capital lease.

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The following table presents a reconciliation of capital expenditures to purchases of property, plant and equipment and equipment acquired under capital lease for the periods indicated:

	<b>For the year ended December 31,</b>				
	<b>2004</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>
	<b>(in millions)</b>				
Purchase of property, plant and equipment	43.0	36.3	122.0	41.8	33.1
Equipment acquired under capital lease	8.7	8.1	8.6	13.2	6.4
<b>Capital expenditures</b>	<b>51.7</b>	<b>44.4</b>	<b>130.6</b>	<b>55.0</b>	<b>39.5</b>

(7) Net Debt is the amount of bank overdrafts plus current portion of long-term debt, plus long-term debt less cash and cash equivalents.

(8) Net interest expense is another term for Interest and other financial income and expense, net as stated in our statements of operations.

(9) EBITDA is defined as net income (loss) plus income tax, plus interest and other financial income and expense, plus depreciation and amortization. EBITDA is presented as additional information because we understand that it is one measure used by certain investors to determine our operating cash flow and historical ability to meet debt service and capital expenditure requirements. However, other companies may present EBITDA differently than we do. EBITDA is not a measure of financial performance under French GAAP, U.S. GAAP or IFRS and should not be considered as an alternative to cash flow from operating activities or as a measure of liquidity or an alternative to net income as indicators of our operating performance or any other measures of performance derived in accordance with French GAAP, U.S. GAAP or IFRS.

The following table presents a reconciliation of EBITDA to net income under U.S. GAAP for the periods indicated as follows:

	<b>For the year ended December 31,</b>				
	<b>2004</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>
	<b>(in millions)</b>				
Net Income (loss)	3.3	3.1	15.1	9.3	(12.0)
Interest	22.4	25.1	33.1	23.0	15.9
Taxes	15.0	16.7	13.3	16.8	10.6
Depreciation and amortization	131.7	145.2	215.6	146.1	143.6
<b>EBITDA</b>	<b>172.4</b>	<b>190.1</b>	<b>277.1</b>	<b>195.2</b>	<b>158.1</b>

**The European Monetary System**

Under the Treaty on European Union negotiated at Maastricht, The Netherlands, in 1991 (the Maastricht Treaty) and signed by the then 12 EU Member States in early 1992, the European Monetary Union (the EMU), with a single European currency under the monetary control of the European Central Bank, was introduced. On January 1, 1999, the last stage of the EMU came into effect with the adoption of fixed exchange rates between national currencies and the

euro. On January 1, 2002, the euro became the official currency of the following 12 EU Member States: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal and Spain. As a result, national currencies (including the French franc) ceased to exist during the first quarter of 2002, after transition periods during which national currencies of such Member States and the euro co-existed.

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The following table sets forth, for the periods and dates indicated, certain information concerning the exchange rates for the euro expressed in U.S. dollars per euro. Information concerning the U.S. dollar exchange rate is based on the noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the Noon Buying Rate). Such rates are provided solely for convenience and no representation is made that French francs or euro were, could have been, or could be, converted into U.S. dollars at these rates or at any other rate. Such rates were not used by us in the preparation of our audited consolidated financial statements included elsewhere in this annual report. The Noon Buying Rate on April 15, 2005 was U.S.\$1.2928 per euro.

Year ended December 31,	Dollars per Euro Exchange Rate			
	Period-end	High	Low	Average <sup>(1)</sup>
2000	0.94	1.03	0.83	0.92
2001	0.89	0.95	0.84	0.90
2002	1.05	1.05	0.86	0.95
2003	1.26	1.26	1.04	1.14
2004	1.35	1.36	1.18	1.24

**Month**

October 2004	1.27	1.24
November 2004	1.33	1.27
December 2004	1.36	1.33
January 2005	1.35	1.30
February 2005	1.33	1.28
March 2005	1.35	1.29
April 2005 (through April 15)	1.30	1.28

(1) The annual average rate is the average of the Noon Buying Rates on the last business day of each month.

U.S. dollar translations included for convenience throughout this annual report for dates other than the last day of the periods presented above have been made at the Noon Buying Rates on such dates.

**Capitalization and Indebtedness**

Not applicable.

**Reasons for the Offer and Use of Proceeds**

Not applicable.

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### **Risk Factors**

#### **Risks Related to Our Business**

***Our results of operations can be significantly affected by currency fluctuations.***

As a company that derives a substantial amount of its revenue from sales internationally, we are subject to risks relating to fluctuations in currency exchange rates. In each of the years ended December 31, 2004, 2003 and 2002, over 90% of our operating revenues and approximately two-thirds of our operating expenses were denominated in currencies other than the euro. These included the U.S. dollar and, to a significantly lesser extent, other non-euro Western European currencies, principally the British pound and the Norwegian kroner. In addition, a significant portion of our revenues that were invoiced in euros related to contracts that were effectively priced in U.S. dollars, as the U.S. dollar often serves as the reference currency when bidding for contracts to provide geophysical services. Our exposure to fluctuations in the euro/ U.S. dollar exchange rate has increased considerably over the last few years due to increased sales outside of Europe.

Fluctuations in the exchange rate of the euro against such other currencies, particularly the U.S. dollar, have had in the past and can be expected in future periods to have a significant effect upon our results of operations. Since we participate in competitive bids for data acquisition contracts that are denominated in U.S. dollars, a depreciation of the U.S. dollar against the euro (such as has occurred since the second half of 2003) harms our competitive position against that of other companies whose costs and expenses are denominated in U.S. dollars. For financial reporting purposes, such depreciation negatively affects our reported results of operations since U.S. dollar-denominated earnings that are converted to euros are stated at a decreased value. While we attempt to reduce the risks associated with such exchange rate fluctuations through our hedging policy, we cannot assure you that we will be effective or that fluctuations in the value of the currencies in which we operate will not materially affect our results in the future.

***We have had operating losses in the past and we cannot assure you that we will be profitable in the future.***

We recorded net losses each year from 1998 to 2000. In 2001 and 2002, we recorded net income of 15.7 million and 17.4 million, respectively, marking a return to profitability. After recording a net loss of 10.4 million in 2003, primarily due to a charge for the restructuring of our land seismic acquisition business unit, we recorded net income of 11.1 million in 2004. We have taken measures designed to respond to the circumstances existing in the industry underlying prior year losses; however, we cannot assure you that the implementation of these actions will lead to profitability in future years.

***We are subject to risks related to our international operations that could harm our business and results of operations.***

With operations worldwide, and with a majority of our revenues derived outside of the United States and Western Europe, including emerging markets, our business and results of operations are subject to various risks inherent in international operations. These risks include:

instability of foreign economies and governments;

risks of war, seizure, renegotiation or nullification of existing contracts; and

foreign exchange restrictions, laws and other policies affecting trade and investment.

While we carry insurance against political risks associated with such operations, in amounts we consider appropriate in accordance with industry practices, we cannot assure you that we will not be subject to material adverse developments with respect to our international operations. In addition the tax treatment of certain of our complex transactions is difficult to predict with certainty, and, although we believe that we have made appropriate provisions for taxation, the imposition of tax on such transactions could require cash payments by us.

We and our subsidiaries and our affiliated entities also conduct business in countries known to experience government corruption. We are committed to doing business in accordance with our code of ethics but there is a risk that we, our subsidiaries or affiliated entities or their respective officers, directors, employees and agents may take action in violation of applicable laws, including the Foreign Corrupt Practices Act of 1977. Any such violations could result in substantial civil and/ or criminal penalties and might adversely affect our business and



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results of operations or financial condition. See Directors, Senior Management and Employees Board Practices Audit Committee .

***Future businesses and technologies that we may acquire may be difficult to integrate, disrupt our business, dilute stockholder value or divert management attention.***

An aspect of our current business strategy is to seek new businesses, technologies and products to broaden the scope of our existing and planned product lines and technologies. For example, we acquired several manufacturers of seismic products in 2003 and 2004 in order to expand Sercel's product line. We also believe that the seismic industry should continue to consolidate with the goal of exploiting synergies and to promoting the emergence of seismic operators possessing larger financial and technological bases. Although we regularly explore opportunities with respect to possible acquisitions of businesses, technologies or products, we do not currently have any understandings, commitments or agreements relating to any such material transactions. Future transactions of this type could result in the incurrence of debt and contingent liabilities and an increase in amortization expenses related to goodwill and other intangible assets, which could have a material adverse effect upon us.

Risks we could face with respect to recent and future acquisitions include:

difficulties in the integration of the operations, technologies, products and personnel of the acquired company;

diversion of management's attention away from other business concerns; and

expenses of any undisclosed or potential legal liabilities of the acquired company.

The risks associated with acquisitions could have a material adverse effect upon our business, financial condition and results of operations. We cannot assure that we will be successful in consummating future acquisitions on favorable terms, if at all.

***We invest significant amounts of money in acquiring and processing seismic data for multi-client surveys and for our data library without knowing precisely how much of the data we will be able to sell or when and at what price we will be able to sell the data.***

We invest significant amounts in acquiring and processing seismic data that we own. By making such investments, we assume the risk that:

we may not fully recover the costs of the data through future sales. The amounts of these data sales are uncertain and depend on a variety of factors. Many of these factors are beyond our control. In addition, the timing of these sales can vary greatly from period to period. Technological or regulatory changes or other developments could also adversely affect the value of the data;

the value of our multi-client data could be significantly adversely affected if any material adverse change occurred in the general prospects for oil and gas exploration, development and production activities in the areas where we acquire multi-client data; and

any reduction in the market value of such data will require us to write down its recorded value, which could have a significant adverse effect on our results of operations.

***Our working capital needs are difficult to forecast and may be subject to significant and rapid increases which could result in additional financing requirements that we may not be able to obtain at all or on satisfactory terms.***

It is difficult for us to predict with certainty our working capital needs. This is due primarily to working capital requirements related to our marine seismic acquisition business and related to the development and introduction of new lines of geophysical equipment products. For example, under specific circumstances, we may extend the length of payment terms we grant to our customers. We may therefore be subject to significant and rapid increases in our working capital needs that we may have difficulty financing on satisfactory terms or at all due to limitations in our existing debt agreements.



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***Technological changes and new products and services are frequently introduced in our market, and our technology could be rendered obsolete by these introductions or we may not be able to develop and produce new and enhanced products on a cost-effective and timely basis.***

Technology changes rapidly in our industry, and new and enhanced products are frequently introduced in the market for our products and services, particularly in our equipment manufacturing and data processing and geosciences sectors. Our success depends to a significant extent upon our ability to develop and produce new and enhanced products and services on a cost-effective and timely basis in accordance with industry demands. While we commit substantial resources to research and development, we cannot assure you that we will not encounter resource constraints or technical or other difficulties that could delay our introduction of new and enhanced products and services in the future. In addition, our continuing development of new products inherently carries the risk of obsolescence with respect to our older products. We cannot assure you that new and enhanced products and services, if introduced, will gain market acceptance or will not be adversely affected by technological changes or product or service introductions.

***We depend on proprietary technology.***

Our results of operations depend in part upon our proprietary technology. We rely on a combination of patents, trademarks and trade secret laws to establish and protect our proprietary technology. We hold or have applied for approximately 140 patents, in various countries, for products and processes. These patents last for between four and 20 years, depending on the date of filing and the protection accorded by each country. In addition, we enter into confidentiality and license agreements with our employees, customers and potential customers and limit access to and distribution of our technology. However, we cannot assure you that actions we take to protect our proprietary rights will be adequate to deter the misappropriation or independent third party development of our technology. Although we have not been involved in any material litigation regarding our intellectual property rights or the possible infringement of intellectual property rights of others, we cannot assure you that such litigation will not be brought in the future. In addition, the laws of certain foreign countries do not protect proprietary rights to the same extent as either the laws of France or the laws of the United States.

***We depend on attracting and retaining qualified employees to develop our business know-how.***

Our results of operations depend in part upon our business know-how. We believe that development of our know-how depends in large part on our ability to attract and retain highly skilled and qualified personnel. Any inability of ours in the future to hire, train and retain a sufficient number of qualified employees could impair our ability to manage and maintain our business and to develop and protect our know-how.

***We rely on significant customers, so the loss of a single or a few customers could have a material adverse impact on our business.***

A relatively small number of clients account for a significant percentage of our revenues. During 2003, our three largest clients accounted for 14.7%, 8.5% and 5.5% of our operating revenues, respectively. During 2004, our two largest clients accounted for 6.7% and 6.1% of our operating revenues, respectively. The loss of a substantial amount of the business of any of these clients could have a material adverse effect on our operating revenues and our business.

***The nature of our business is subject to significant ongoing operating risks for which we may not have adequate insurance or for which we may not be able to procure adequate insurance on economical terms, if at all.***

Our seismic data acquisition activities, particularly in deepwater marine areas, are often conducted under harsh weather and other hazardous conditions and are subject to risks of loss from business interruption, delay or equipment destruction. We carry insurance against the destruction of or damage to our seismic equipment and against business interruption for our data processing activities in amounts we consider appropriate in accordance with industry practice. However, we cannot assure you that our insurance coverage will be adequate in all circumstances or against all hazards, or that we will be able to maintain adequate insurance coverage in the future at commercially reasonable rates or on acceptable terms.

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***We will be required to adopt new accounting standards as of and for the three months ended March 31, 2005 and subsequent fiscal periods that may materially change our financial statements and financial reporting.***

European Union regulations currently require that all companies whose securities are listed in the European Union must apply IFRS in preparing their financial statements for financial years beginning on or after January 1, 2005. As a result, we will use IFRS in preparing our financial statements for the three months ended March 31, 2005 and subsequent financial periods. When prepared in accordance with the new IFRS standards in fiscal year 2005, our financial statements may differ materially from our financial statements prepared in accordance with French GAAP, particularly with respect to our accounting treatment of development costs and goodwill amortization. Consequently, the methods used by the financial community to assess our financial performance and value our ordinary shares could be affected. See Management's Discussion and Analysis of Financial Condition and Result of Operations Adoption of IFRS Accounting .

**Risks Related to our Industry**

***We depend on capital expenditures by the oil and gas industry, and reductions in such expenditures have had, and may in the future have, a material adverse impact on our business.***

Demand for our products and services has historically been dependent upon the level of capital expenditures by oil and gas companies for exploration, production and development activities. These expenditures are significantly influenced by oil and gas prices and by expectations regarding future oil and gas prices. Oil and gas prices may fluctuate based on relatively minor changes in the supply and demand for oil and gas, expectations regarding future supply and demand for oil and gas and certain other factors beyond our control. Lower or volatile oil and gas prices tend to limit the demand for our services and products.

Factors affecting the prices of oil and gas include:

level of demand for oil and gas;

worldwide political, military and economic conditions, including political developments in the Middle East, economic growth levels and the ability of OPEC to set and maintain production levels and prices for oil;

level of oil and gas production;

policies of governments regarding the exploration for and production and development of oil and gas reserves in their territories; and

global weather conditions.

The markets for oil and gas historically have been volatile and are likely to continue to be so in the future.

Historically, there has been an average lag of six months between recovery in the market for petroleum products and implementation by oil companies of projects requiring seismic services. However, despite oil prices above \$30 per barrel since mid-2003, oil companies only began to significantly increase their demand for seismic services in mid-2004, due to uncertainty about future price levels for oil and gas. We believe that global geopolitical uncertainty, particularly following the events of September 11, 2001 and the conflict in Iraq in 2003, harmed the confidence and visibility that are essential in our clients' long term decision-making processes. As a consequence, they have delayed or cancelled many projects. Continued geopolitical uncertainty in the Middle Eastern producing region (where we are particularly active) could lead oil companies to delay or cancel additional geophysical projects. Any events that affect worldwide oil and gas supply, demand or prices or that generate uncertainty in the market could reduce exploration and development activities and negatively affect our operations. We cannot assure you as to future oil and gas prices or the resulting level of industry spending for exploration, production and development activities.

***We are subject to intense competition, which could limit our ability to maintain or increase our market share and to maintain our prices at profitable levels.***

Most of our contracts are obtained through a competitive bidding process, which is standard for the industry in which we operate. While no single company competes with us in all of our segments, we are subject to intense



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competition with respect to each of our segments. We compete with large, international companies as well as smaller, local companies. In addition, we compete with major service providers and government-sponsored enterprises and affiliates. We are subject to particularly intense competition in the land seismic acquisition market, notably from Chinese companies that have entered the market and have expanded their international market share. Some of our competitors operate more data acquisition crews than we do and have substantially greater financial and other resources. These and other competitors may be better positioned to withstand and adjust more quickly to volatile market conditions, such as fluctuations in oil and gas prices and production levels, as well as changes in government regulations. In addition, if geophysical service competitors increase their capacity in the future (or fail to reduce capacity if demand decreases), the excess supply in the seismic services market could apply downward pressure on prices.

***We have high levels of fixed costs that will be incurred regardless of our level of business activity.***

Our business has high fixed costs, and downtime or low productivity due to reduced demand, weather interruptions, equipment failures or other causes could result in significant operating losses.

***Our land and marine seismic acquisition activities are seasonal in nature.***

Our land and marine seismic acquisition activities are seasonal in nature. We generally experience decreased revenues in the first quarter of each year due to the effects of weather conditions in the Northern Hemisphere and to the fact that our principal clients are generally not prepared to fully commit their annual exploration budget to specific projects during that period.

We have historically experienced higher levels of activity in our equipment manufacturing operations in the fourth quarter as our clients seek to fully deploy annual budgeted capital.

**Risks Related to our Indebtedness**

***Our substantial debt could adversely affect our financial health and prevent us from fulfilling our obligations.***

We have a significant amount of debt. As of December 31, 2004, our total consolidated long-term debt, consolidated total assets and shareholders equity were 267.2 million, 939.6 million and 395.7 million, respectively.

Our substantial debt could have important consequences to you. For example, it could

increase our vulnerability to general adverse economic and industry conditions;

require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;

limit our flexibility in planning for, or reacting to, changes in our businesses and the industries in which we operate;

place us at a competitive disadvantage compared to our competitors that have less debt; and

limit, along with the financial and other restrictive covenants of our indebtedness, among other things, our ability to borrow additional funds.

Failing to comply with restrictive covenants in our loan agreements or the indenture relating to our senior notes could result in an event of default that, if not cured or waived, could have a material adverse effect on us.

***Despite current debt levels, we and our subsidiaries may still be able to incur substantially more debt.***

We and our subsidiaries may be able to incur substantial additional debt (including secured debt) in the future. As of December 31, 2004, we had no outstanding borrowings under our syndicated credit facility, leaving us with U.S.\$60 million of availability thereunder. We have availability of 10.2 million under all other credit facilities. If new debt is added to our and our subsidiaries current debt levels, the related risks that we, and they, now face could intensify.

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***To service our indebtedness, we will require a significant amount of cash. Our ability to generate cash depends on many factors beyond our control.***

Our ability to make payments on and refinance our indebtedness and to fund planned capital expenditures will partly depend on our ability to generate cash in the future. This, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

We cannot assure you that our business will generate sufficient cash flow from operations, that we will realize operating improvements on schedule, that we will find purchasers for the assets we intend to sell or that future borrowings will be available to us in an amount sufficient to enable us to pay our indebtedness or to fund our other liquidity needs. If we are unable to satisfy our debt obligations, we may have to undertake alternative financing plans, such as refinancing or restructuring our indebtedness, selling assets, reducing or delaying capital investments or seeking to raise additional capital. We cannot assure you that any refinancing or debt restructuring would be possible, that any assets could be sold or, if sold, the timing of the sales and the amount of proceeds realized from those sales, or that additional financing could be obtained on acceptable terms.

***Our debt agreements may limit our ability to respond to changes in market conditions or to pursue business opportunities.***

As of December 31, 2004, we had total long-term debt of 267.2 million and total shareholders' equity of 395.7 million. We may need to borrow additional amounts in the future to meet our anticipated working capital and capital expenditure needs. In addition, our 10<sup>5</sup>/8% senior notes and our new U.S.\$60 million syndicated credit facility, which was signed on March 12, 2004 and replaces our previous syndicated credit facility, contain restrictive covenants. These covenants include restrictions on payments and investments, the incurrence of indebtedness, the creation of liens, the entry into sale and leaseback transactions, the issuance and sale of subsidiary stock and the payment of dividends and other payments by certain of our subsidiaries. Complying with the restrictions contained in some of these covenants requires us to meet certain ratios and tests, notably with respect to consolidated interest coverage, total assets, net debt, equity and net income. The requirement that we comply with these provisions may negatively affect our ability to react to changes in market conditions, take advantage of business opportunities we believe to be desirable, obtain future financing, fund needed capital expenditures, significantly increase research and development expenditures, or withstand a continuing or future downturn in our business.

***If we are unable to comply with the restrictions and covenants in our debt agreements, there could be a default under the terms of these agreements, which could result in an acceleration of payment of funds that we have borrowed.***

If we are unable to comply with the restrictions and covenants in our current or future debt agreements, there would be a default under the terms of these agreements. Our ability to meet our financial ratios and tests may be affected by events beyond our control. As a result, we cannot assure you that we will be able to meet these tests. In the event of a default under these agreements, our lenders could terminate their commitments to lend to us or accelerate the loans and declare all amounts borrowed due and payable. Borrowings under other debt instruments that contain cross-acceleration or cross-default provisions may also be accelerated and become due and payable. If any of these events occur, we cannot assure you that our assets would be sufficient to repay in full all of our indebtedness or that we would be able to find alternative financing. Even if we could obtain alternative financing, we cannot assure you that it would be on terms that are favorable or acceptable to us.

***Our results could be affected by changes in interest rates.***

Our sources of liquidity include credit facilities with financial institutions charging variable interest rates over the course of drawdown periods of from one to twelve months. As a result, our interest expenses could increase if short-term interest rates increase. However, our exposure to interest rate fluctuations is reduced to the extent that the main part of our financial debt at December 31, 2004 consisted of a bond issue maturing in November 2007 and bearing a fixed interest rate and subordinated bonds convertible into new ordinary shares or redeemable into new shares and/or existing shares and/or in cash maturing in November 2012 and also bearing a fixed interest rate. A large part of our sources of liquidity also consists of long-term credit facilities and capital leases of various durations with fixed interest rates.



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### **Item 4: INFORMATION ON THE COMPANY**

#### **History and Development of the Company**

We were established in 1931 to market geophysical techniques for appraising underground geological resources. Since that time, we have gradually come to specialize in seismic techniques adapted to exploration for and production of oil and gas, while continuing to carry on other geophysical activities. Compagnie Générale de Géophysique is the parent company of the CGG group. We are a *société anonyme* incorporated under the laws of the Republic of France and operating under the French *Code de commerce*. Our registered office is 1, rue Léon Migaux, 91300 Massy, France. Our telephone number is (33) 1 64 47 3000.

Over the course of the last three years, we completed numerous acquisitions and dispositions which are described under Operating and Financial Review and Prospects Acquisitions and Dispositions in Item 5, and elsewhere in this annual report.

#### **Business Overview**

We believe we are a leading international provider of geophysical services and a leading manufacturer of geophysical equipment. We provide geophysical services principally to oil and gas companies that use seismic imaging to help explore for, develop and manage oil and gas reserves by:

identifying new areas where subsurface conditions are favorable for the accumulation of oil and gas;

determining the size and structure of previously identified oil and gas fields; and

optimizing development and production of oil and gas reserves (reservoir management).

We sell our geophysical equipment primarily to other geophysical service companies.

Our operations are organized into two main segments: Services and Products. Services accounted for 57% and Products accounted for 43% of our consolidated revenues for the year ended December 31, 2004. We generate revenues (by location of customers) on a worldwide basis. For the year ended December 31, 2004, 30% of our consolidated revenues were from the Americas, 40% from the Middle East and the Asia-Pacific region, 20% from Europe and CIS, and 10% from Africa.

#### **Industry Conditions**

Overall demand for geophysical services and equipment is dependent upon spending by oil and gas companies for exploration, production development and field management activities. This spending depends in part on present and expected future oil and gas prices.

We believe that the medium-term outlook for the geophysical services sector, particularly the offshore segment, and the demand for geophysical products is fundamentally positive for a number of reasons:

Renewed geopolitical stability in the aftermath of the Iraq conflict, while uncertain, may gradually restore confidence and visibility in the oil and gas industry, improving the prospects for new projects by our clients.

Economic growth, particularly in more active regions such as Asia (notably China and India), is generating increased energy demand and leading to higher energy prices and increased exploration efforts.

The need to replace depleting reserves and maximize the recovery of oil in existing reservoirs should encourage capital expenditures by our clients in exploration and production, which we expect will benefit the seismic industry.

The scope of application of geophysical services has considerably increased over the last several years as a result of significant research and development efforts. Geophysical services can now potentially be applied to the entire sequence of exploration, development and production as opposed to exploration only. This is particularly true with technologies such as 4D (time lapse seismic data). The broader scope for services could increase the accessible markets for the geophysical industry.





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Finally, the depth and duration of the contraction in the geophysical sector between 1999 and 2003 may have increased awareness among geophysical service providers of the risks related to market overcapacity.

**Business Strategy**

We intend to continue to strengthen our competitive position in the global geophysical services and products markets by capitalizing on growth opportunities resulting from both the application of new technologies in every sector of our business from exploration to production and reservoir management and from our diversified geographic presence.

To achieve our objective, we have adopted the following strategies:

***Focus on Growth Areas for Geophysical Services***

We believe that the continued enhancement of our proprietary seismic data recording equipment and software will help us to remain among the leading providers of 3D land seismic surveys. We believe that our proprietary equipment and software provide us with a competitive advantage in specific growth markets, such as data acquisition in transition zones and difficult terrain, where recent technological advances have made seismic acquisition more feasible. We intend to focus on developing our technological capabilities in emerging markets for geophysical services, such as reservoir appraisal and production monitoring. We believe that, due to our extensive international experience, we also have a competitive advantage in certain geographic markets such as Europe, Africa, the Middle East and Latin America, where we have been operating longer than many of our competitors where we have developed partnerships with local seismic acquisition companies in several countries. We also believe that we have unique experience and expertise in complex land acquisition projects.

We intend to maintain our position in the marine seismic market for non-exclusive data by developing our non-exclusive data library. We believe that a strong position in this market segment enhances our global competitive position and may provide opportunities for significant future sales. In developing our non-exclusive data library, we carefully select survey opportunities in order to maximize our return on investment. Our policy is also to apply the latest advances in depth imaging technology to a selected part of our library.

Given the growing importance of geophysics in reservoir characterization, we intend to further develop the synergies between our data processing and reservoir services. This approach places us in a better position to meet the requirements of our clients with an extensive range of integrated services. We also intend to increase our processing capability in developing disciplines, such as lithology prediction (identification of the rock layers covering and surrounding the oil trap), as well as applications relating to reservoir description and monitoring, including 3D pre-stack depth imaging, multi-component and 4D studies. We also plan to continue promoting and developing our dedicated processing center services within our clients' offices.

We also intend to develop an innovative suite of solutions for reservoir development and reservoir monitoring. In 2004, for example, we carried out several pilot sub sea projects using ocean-bottom seismic sensors in the Gulf of Mexico.

***Develop Technological Synergies for Products and Capitalize on New Generation Equipment***

We believe Sercel is the leading producer of land, marine and sub sea geophysical equipment. We plan to continue developing synergies among the technologies available within Sercel and to capitalize fully on our position as a market leader. Through internal expenditures on research and development, we seek to improve existing products and maintain an active new product development program in all segments of the geophysical equipment market (land, marine and ocean-bottom).

***Develop and Utilize Innovative Technology***

We believe that growth in demand for geophysical services will continue to be driven by the development of new technologies. We expect multi-component (3C/4C) surveys and time-lapse (4D) surveys to become increasingly important for new production-related applications, particularly in the marine sector, and expect specialized recording equipment for difficult terrain to become more important in land seismic data acquisition, particularly in transition zones and shallow water. We believe that to remain competitive, geophysical services

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companies will need to combine advanced data acquisition technology with consistently improving processing capacity in order to reduce further delivery times for seismic services. Our strategy is to take advantage of our leading technology and our ability to integrate our full range of services to enhance our position as a market leader in:

land and transition zone seismic data acquisition systems and know how;

innovative marine or subsea acquisition systems and services;

seismic data processing and reservoir services; and

manufacturing of land, marine and subsea data acquisition equipment.

In this respect, we intend to continue our high level of research and development investment to reinforce our technological leadership.

***Emphasize Client Service***

We believe it is important to operate in close proximity to our clients to develop a better understanding of their individual needs and to add measurable value to their business processes. We respond to these needs by creating new products or product enhancements that improve the quality of data and reduce the data delivery time to clients. We believe that our regional multi-client and dedicated data processing centers in our clients' offices provide us with an advantage in identifying contract opportunities, optimizing service to clients and developing products responsive to new market demands, such as seismic techniques applied to reservoir management. We believe that we are well positioned to benefit from the industry trend towards increased outsourcing that is leading oil and gas companies to place greater emphasis on relationships and service quality, including health, safety and protection of the environment, in their selection of third party service providers, including geophysical services providers. We plan to continue implementing our strategy towards service to clients through:

tailoring our data acquisition operations to meet specific client demands;

expanding regional multi-client and dedicated on-site processing centers;

recruiting and training customer-oriented service staff;

organizing client training seminars focused on our products and services;

developing easy access to our multi-client data library through the increasing application of e-business technologies;

developing corporate contracts with our main clients; and

gaining access to new data acquisition markets, such as subsea and newly opening territories.

***Provide Integrated Services***

We are committed to providing clients with a full array of seismic data services, from acquisition and processing to data interpretation and management. We believe that integration of compatible technology and equipment increases the accuracy of data acquisition and processing, enhances the quality of our client service and thereby improves productivity in oil and gas exploration and production. Our clients increasingly seek integrated solutions to better evaluate known reserves and improve the ratio of recoverable hydrocarbons from producing fields. We are continuing to develop our ability to provide geosciences solutions through a combination of various exploration and production services, including technical data management, reservoir characterization and interpretation of well information.

***Monitor Industry Consolidation Opportunities***

We will continue to monitor developments in the industry and remain committed to pursuing attractive opportunities for consolidation, if they appear. We believe that the goal of any such consolidation would be to exploit

synergies and to promote the emergence of seismic operators possessing larger financial and technological bases.

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The following table sets forth our consolidated operating revenues by activity, and the percentage of total consolidated operating revenues represented thereby, for the periods indicated:

	Year ended December 31,					
	2004		2003		2002	
	(in millions, except percentages)					
Land SBU	77.3	11%	144.5	24%	184.6	26%
Offshore SBU	211.0	31%	157.1	26%	199.8	28%
Processing & Reservoir SBU	105.0	15%	111.6	18%	123.2	18%
Services	393.3	57%	413.2	68%	507.6	72%
Products	299.4	43%	199.2	32%	193.1	28%
<b>Total</b>	<b>692.7</b>	<b>100%</b>	<b>612.4</b>	<b>100%</b>	<b>700.7</b>	<b>100%</b>

***Revenues by Region (by location of customers)***

The following table sets forth our consolidated operating revenues by region, and the percentage of total consolidated operating revenues represented thereby, for the periods indicated:

	Year ended December 31,					
	2004		2003		2002	
	(in millions, except percentages)					
Americas	207.7	30%	233.6	38%	289.0	41%
Asia-Pacific/ Middle East	279.8	40%	187.5	31%	181.3	26%
Europe and CIS	138.2	20%	86.3	14%	116.5	17%
Africa	67.0	10%	105.0	17%	113.9	16%
<b>Total</b>	<b>692.7</b>	<b>100%</b>	<b>612.4</b>	<b>100%</b>	<b>700.7</b>	<b>100%</b>

**Services**

Our services are organized into the following three Strategic Business Units ( SBU's ) for increased efficiency: Land SBU, Offshore SBU and Processing & Reservoir SBU. We have also established a network of country managers responsible for promoting our entire spectrum of products and services in our main markets, focusing on providing comprehensive solutions to client problems. We believe that our capacity to provide integrated geophysical services is a significant competitive advantage that will help us to implement all components of our strategy.

***Land SBU***

We believe we are a leading land seismic contractor outside of North America, particularly in difficult terrain. At December 31, 2004, we had eight land crews performing specialized 3D and 2D seismic surveys, all of which were recording data. Revenues from our Land SBU accounted for 24% and 11% of our revenues in 2003 and 2004, respectively.

*Land Seismic Acquisition.* Land seismic acquisition includes all seismic surveying techniques where the recording sensor is either in direct contact with, or in close proximity to, the ground. Our Land SBU offers integrated services, including the acquisition and processing of seismic data on land, in transition zones and on the ocean floor (seabed surveys).

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*Description of Activity.* Seismic surveying on land is carried out by installing geophones linked to digital recorders that are used to receive the signals from reflected acoustical waves. Vibroseismic vehicles are the preferred method of generating acoustical waves since the frequency of the waves they emit can be precisely modulated by a computerized system and is less susceptible to noise or error. In difficult terrain or transition zones, however, other methods of generating acoustical waves must be utilized, such as explosives or air guns.

Seismic surveying in transition zones and on the sea bed is carried out by laying cables or other stationary measuring devices on the ocean floor. Ocean bottom cables allow seismic surveys to be conducted in areas not accessible to marine vessels, such as shallow water or the area around drilling platforms. Ocean bottom cables also provide high quality seismic data because they are in direct contact with the ocean floor.

Our land seismic crews are equipped with advanced proprietary equipment and software used in each stage of the land seismic acquisition process, including:

the Sercel 408UL seismic data recorders (Sercel's latest generation equipment), which feature 24-bit digital recording technology;

Geoland quality control software, which is used to verify that the location of field data points during a survey corresponds to their theoretical position;

the Sercel VE 432 vibrator electronic control system, used to synchronize and verify the emission of acoustical waves by vibrators; and

Geocluster software, used for on-site processing and quality control of acquired data.

We believe that our proprietary equipment and software enable us to offer high quality, fully integrated land seismic services. We have pioneered real-time positioning of geophones and seismic sources, quality control of positioning during land surveys, and onsite processing, which together increase the accuracy and efficiency of such surveys.

One of the challenges inherent in land acquisition surveys is gathering data without disrupting the sensitive ecosystems in which such surveys are frequently located. We have developed a strong position in environmentally sensitive zones, such as mountainous regions, tropical forests and swamps, by following a strict policy of preserving the natural environment to the extent possible. We have designed shallow draft boats and ultra-light drilling equipment to facilitate operations in such sensitive zones. This equipment can be transferred safely and rapidly from one area to another. We also work in conjunction with the local community at site locations, hiring local employees and obtaining necessary local authorizations to alleviate potential opposition to our operations.

The difficulty of access to survey sites is a major factor in determining the number of personnel required to carry out a survey and the cost of a survey. Fully staffed land or transition zone areas range in size from 40 to 3,000 members (principally composed of local employees in the latter case), and the cost of a survey can range from several hundred thousand to several million dollars per month, depending on the size of the team and the type and difficulty of the study.

We work closely with our clients to plan surveys in accordance with their specifications. This provides us with a competitive advantage in being selected to carry out surveys, whether such surveys are awarded based on competitive bids or directly negotiated agreements with clients. We regularly conduct land acquisition surveys for national and international oil companies.

We have developed partnerships with local seismic acquisition companies in several countries (Kazakhstan, Indonesia and Libya). We bring to these partnerships our international expertise, technical know-how, equipment and experienced key personnel as needed, while local partners provide their logistical resources, equipment and knowledge of the environment and local market.

In Saudi Arabia, our land seismic acquisition activities are conducted through Arabian Geophysical & Surveying Co. (Argas), a joint venture owned 49% by us and 51% by IESC (Industrialization and Energy Services Company), our local partner.



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*Restructuring.* In 2003, our land acquisition business unit went through a period of intense competition, as described above. This situation led us to reassess our presence in certain geographical land acquisition markets. In September 2003, we launched a restructuring program to substantially lower fixed costs in our land acquisition unit. This program was substantially completed by December 2003. The plan included the redundancy of 250 personnel in total, as well as the closure of a number of international representative offices, corresponding to expected annual fixed cost savings of approximately \$30 million, with full effect in the second half of 2004. In the second half of 2004, land acquisition experienced historically low activity, especially in Africa and the Middle East, where numerous projects were delayed into 2005.

*Business Development Strategy.* Our strategy for the Land SBU is to:

continue to upgrade the equipment used by our land acquisition crews with state-of-the-art land recording systems in the 3D segment, which in 2004 represented 75% of our Land SBU operations; and

promote our expertise in harsh environments, sensitive areas (in terms of environmental or communities concerns) and transition zones, where we believe we have a competitive advantage in our principal markets: Europe, Africa, the Middle East, Asia and Latin America. These areas present barriers to entry and are less sensitive to pricing competition due to difficult working environments and the complexity of the projects.

### ***Offshore SBU***

We provide a full range of 3D marine seismic services, principally in the Gulf of Mexico, the North Sea and off the coasts of West Africa and Brazil as well as in the Asia-Pacific region. The capacity to both acquire and process marine seismic data is an important element of our overall strategy to maintain and develop our leading position in marine seismic data acquisition and processing. Revenues from our Offshore SBU accounted for 26% and 31% of our revenues in 2003 and 2004, respectively.

*Marine Seismic Acquisition.* We currently operate a fleet of five vessels, two of which we own, two of which we operate under renewable time charters with Louis Dreyfus Armateurs ( LDA ), one of the largest shipowners in France, and one of which we operate under time charter indirectly in partnership with LDA. Time charters allow us to change vessels in order to keep pace with market developments and provide us with the security of continued access to vessels without the significant investment required for ownership. LDA also supplies crews for the three vessels not wholly owned by us (other than persons directly involved in seismic data acquisition).

*Description of Activity.* Marine seismic surveys are conducted through the deployment of submersible cables (streamers) and acoustic sources (airguns) from marine vessels. Such streamers are each up to ten kilometers long and carry hydrophone groups normally spaced 12.5 meters apart along the length of the streamer. The recording capacity of a vessel is dependent upon the number of streamers it tows and the number of acoustic sources it carries, as well as the configuration of its data recording system. By increasing the number of streamers and acoustic sources used, a marine seismic operator can perform large surveys more rapidly and efficiently.

Each of our five seismic acquisition vessels is equipped with modern integrated equipment and software and has the capacity to conduct 3D surveys. Our vessels can deploy between six and ten streamers up to ten kilometers long and are equipped with on-board processing capability. We intend to expand our capacity with a technological upgrade of one of a source vessel, the *Laurentian*, which we have been operating since 2003 under a medium-term charter agreement, into a 3D seismic vessel.

Marine seismic acquisition requires advanced navigation equipment for positioning vessels, acoustic sources and streamers and specialized techniques for safe and rapid deployment and retrieval of acoustic sources and streamers. Each vessel operated by CGG Marine is fitted with a full complement of modern integrated equipment and software, including onboard computer equipment running our GeovecteurPlus software, used to process seismic data.

After returning to service in July 2002 following a technological upgrade, our seismic vessel the *CGG Mistral* sank on December 21, 2002 after an accidental fire broke out onboard off the coast of Trinidad. All



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personnel on board were safely evacuated. We are aware of no impact on the environment, and the ship and its streamers were fully insured.

On December 27, 2002, we sold our borehole seismic activity business to Baker Atlas, a division of Baker Hughes for U.S.\$12 million cash and agreed to form a joint venture (called VS Fusion) with Baker Atlas for the processing and interpretation of borehole seismic data. The joint venture, in which we own a 49% stake, was launched on June 4, 2003.

*Multi-client Library.* Exclusive contract surveys generally provide for us to be paid a fixed fee per square kilometer of data acquired. When we acquire marine seismic data on an exclusive basis, the customer directs the scope and extent of the survey and retains ownership of the data obtained. In regions where there is extensive petroleum exploration, such as Brazil, the Gulf of Mexico, West Africa, the Mediterranean Sea and the North Sea, we also undertake multi-client (or non-exclusive) surveys whereby we retain ownership of the seismic data. This enables us to provide multiple companies access to the data by way of license. As a result, we have the potential to obtain multiple and higher revenues, while our customers who license the data have the opportunity to pay lower prices.

Our policy is generally to require a minimum share of the estimated cost of each multi-client survey to be covered by pre-commitments from clients prior to commencement. We treat these multi-client projects as investments. In determining whether to undertake multi-client surveys, we consider factors that include the availability of initial participants to underwrite a share of the costs to acquire such data, the location to be surveyed, the probability and timing of any future lease concessions and development activity in the area and the availability, quality and price of competing data. Once the surveys are completed, our customers may license the resulting data through after-sales .

Non-exclusive survey production accounted for approximately 15% of our fleet utilization in 2004 down from 58% in 2003, a result of sharply increased demand for exclusive surveys in 2004. Within the multi-client survey market, pre-commitment sales have decreased in 2004 while after-sales have benefited from increased customer demand. For each of 2004, 2003 and 2002, the value of our multi-client sales (both pre-commitments and after-sales) have exceeded our investments in our multi-client library for that year.

*Business Development Strategy.* Our strategy for the Offshore SBU is to:

continue to deliver advanced services using techniques such as the use of fluid and, in the future, solid streamers with new electronics, as well as on-board processing and data transmission from vessel to onshore processing centers or client facilities, which reduces data delivery time to clients;

pursue high-margin exclusive surveys, where demand permits; and

continue our offshore multi-client surveys with carefully selected survey opportunities in order to build a sound data library in promising exploration areas. We believe that a strong position in this market segment enhances our global competitive position and may provide opportunities for future sales.

***Processing & Reservoir SBU***

We provide seismic data processing and reservoir services through our network of 26 data processing centers (including two dedicated 4D processing centers) and reservoir teams located around the world. Revenues from our Processing & Reservoir SBU accounted for 18% of our revenues in 2003 and for 15% in 2004.

*Description of Activity.* Our seismic data processing operations transform seismic data acquired in the field into 2D cross-sections or 3D images of the earth's subsurface using Geocluster, our proprietary seismic software. These images are then interpreted by geophysicists and geologists for use by oil and gas companies in evaluating prospective areas, selecting drilling sites and managing producing reservoirs. We process seismic data acquired by our own land and marine acquisition crews as well as seismic data acquired by non-affiliated third parties. Marine seismic data has been a significant source of the growth in demand for our data processing services and represents over two-thirds of the operating revenues generated in our processing centers. In addition, we reprocess previously processed data using new techniques to improve the quality of seismic images.

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Beyond conventional processing and reprocessing, we are also increasingly involved in reservoir-applied geophysics, an activity that encompasses large integrated reservoir studies from reprocessing to full reservoir simulation. It also includes advanced technology studies such as reservoir characterization, stratigraphic inversion and stochastic reservoir modeling. In 2001, we were awarded contracts to operate dedicated 4D processing centers for BP and Shell. These contracts have been regularly extended since then.

While our reservoir teams mainly operate from Houston (covering South American projects), London and Massy, France, we also provide seismic data processing (conventional and reservoir-oriented) services through a large network of international and regional data processing centers located around the world. We operate six international processing centers located in Massy, London, Oslo, Houston, Kuala Lumpur and Calgary, Canada. Five of these centers are linked by high-speed fiber optic connections, and all of our centers have access to powerful high-performance computers. We complement our network of international centers with regional multi-client centers and dedicated centers that bring processing facilities within our clients' premises. Fourteen of our data processing centers are dedicated centers that are located in our clients' offices. We believe that these dedicated centers are responsive to the trend among oil and gas companies to outsource processing work while providing our clients with a high level of service. These centers enable our geoscientists to work directly with clients and tailor our services to meet individual clients' needs.

The deployment of new technologies developed by our research and development teams and improved project management methods have increased our efficiency in time and depth migrations. The expertise in 4D that we acquired in the North Sea, in particular through our 4D dedicated centers in Aberdeen, has now been exported to the Gulf of Mexico, where this activity is growing.

Our geographical presence was strengthened in Southeast Asia with the opening of the Kuala Lumpur hub in 2004, equipped with new computer facilities, which is becoming one of our major regional hubs, and is enabling us to increase our reach throughout the Asia-Pacific region.

Each of the principal computers used at our centers is leased for a period of approximately two years, permitting us to upgrade to more advanced equipment at the time of renewal. In 2004, we had more than 20,000 PC clusters worldwide, an average real-time computer capacity representing 40 teraflops, compared to approximately 30 in 2003 and approximately 10 in 2002. Our delivery time has decreased in recent years, enabling delivery of data to clients within the same timeframe as work performed directly onboard marine vessels. We believe that, with the combined capacity of our centers located in Massy, France and London, we have one of the largest computing capacities of any privately-owned facility in Europe.

*IT and Data Management.* We compete in the data management market through sales of PetroVision, a software designed to manage and permit instant retrieval of large quantities of geological, geophysical, well and production data.

*Processing Software Development and Sales.* We sell Geocluster, our proprietary processing software, to the oil and gas industry as well as to scientific and university research centers. This software is currently available on most modern platforms in the market, including Linux platforms. Our other proprietary software products include:

Geovista, a set of software products used to produce accurate images of geological structures and showing depth;

Stratavista, advanced software used to determine specific rock properties from stratigraphic inversion of seismic data;

WaveVista, a depth migration service based on wave equations;

VectorVista, designed to provide greater understanding of seismic data acquired with multi-component techniques; and

ChronoVista, a set of software products used to produce accurate images of geological structures over time.



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*Business Development Strategy.* Our strategy for the Processing and Reservoir SBU is to:

use our expertise in fractured reservoirs to develop our processing activity in the Middle East, especially in Abu Dhabi;

develop and promote our high technology expertise, regional experience and flexibility with the ultimate goal of providing our clients with solutions that are innovative, adapted and geared towards reservoir solutions; and

consolidate our presence in our markets and further expand our activities through our network of processing centers, the quality of our personnel, and our innovative technology.

## **Products**

We conduct our equipment development and production operations through Sercel Holding S.A. and its subsidiaries ( Sercel ). Sercel is the market leader in the development and production of seismic acquisition systems and specialized equipment in the land and offshore seismic markets. Sercel is operated as an independent division and makes most of its sales to purchasers other than CGG. Sercel currently operates eight main seismic equipment manufacturing facilities, located in Nantes, Saint Gaudens and Toulon in France, Houston, Sydney, Singapore, Alfreton in England and Calgary. In China, Sercel operates its activities through Sercel- JunFeng Geophysical Equipment Co Ltd, based in Hebei (China), in which Sercel acquired a 51% stake in the capital in 2004 and through Xian-Sercel a manufacturing joint venture with XPEIC (Xian Petroleum Equipment Industrial Corporation), in which Sercel holds a 40% interest. In addition, two sites in Massy and Brest (France) are dedicated to borehole tools and submarine acoustic instrumentation, respectively.

Revenues from our Products segment accounted for 32% and 43% of our consolidated operating revenues in 2003 and 2004, respectively.

*Description of Activity.* Sercel offers and supports worldwide a complete range of geophysical equipment for seismic data acquisition, including seismic recording equipment and seismic sources, and provides its clients with integrated solutions. Sercel's principal product line is seismic recording equipment, particularly the 408UL 24-bit recording systems.

In November 1999, Sercel launched its latest generation seismic data recording system, the 408UL. The 408UL offers greater operating flexibility than any other previous generation system due to:

clusters of ultra-light acquisition modules allowing total flexibility of configuration,

the option of mixing different communication media (cable, radio, micro-wave, laser, fiber-optic) to form a true network allowing the user to define data routing and hence avoid obstacles in the field; and

an architecture fully supported by a new generation of object-oriented software.

The 408UL is one of the industry's most advanced systems, and at the end of the year 2004, the installed base reached more than 560,000 channels. Sercel, seeking to provide users with systems well-adapted to various environments, developed the 408UL system on the basis of an upgradeable architecture. In 2002, Sercel expanded its family of 408 UL products with the ULS version for transition zone environment and in 2003 with the digital sensor unit (DSU) featuring three component digital sensors based on the MicroElectroMechanicalSystem (MEMS).

Sercel is also a market leader for vibroseismic vehicles. Sercel's latest vibrators, called NOMAD, offer high reliability and unique ergonomic features. Nomad is available with either normal tires or a tracked drive system. The track drive system allows Nomad vibrators to operate in terrain not accessible to vehicles with tires. In sand dunes or arctic conditions this can improve crew productivity. During the geophysical European congress held in Paris, France on June 2004, Sercel launched the NOMAD 90, which is capable of exerting a peak force 90,000 pounds.

In addition to recording systems, Sercel develops and produces a complete range of geophysical equipment for seismic data acquisition and other ancillary geophysical products as a result of the acquisition of Mark

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Products in September 2000, which specialized in the manufacture of geophones, cables and connectors. The acquisition of a 51% stake in Sercel-JunFeng Geophysical Equipment Co Ltd, based in Hebei, China, in January 2004 reinforced our manufacturing capabilities for geophone, cables and connectors, as well as our presence on the Chinese seismic market.

The SEAL, our marine seismic data recording system, capitalizes on the 408 architecture and on our many years of experience in streamer manufacturing. The SEAL is the currently sole system with integrated electronics. Sercel has recently developed, among other products, an innovative solid streamer cable for marine seismic data acquisition that is designed to reduce downtime due to adverse weather conditions and thereby increase data acquisition productivity. Sercel has also expanded its marine product range with ocean bottom cable.

Sercel significantly expanded its product range and increased its market share in the seismic equipment industry with the acquisitions of GeoScience Corporation in December 1999, Mark Product in 2000 and has continued its expansion in 2003 and 2004. In October 2003, Sercel acquired Sodera S.A., a leading provider of air gun sources used mainly in marine seismic data acquisition. In January 2004, Sercel acquired a division of Thales Underwater Systems Pty Ltd that develops and manufactures surface marine seismic acquisition systems, particularly solid streamers, and seabed marine seismic acquisition systems. Both Thales' seismic equipment business and Sercel-JunFeng have been consolidated within the CGG group from January 2004. In addition, through the recent acquisitions of Createch and Orca, Sercel is continuing its expansion while strengthening its position in two areas with perceived growth potential: sea-floor seismic systems and borehole seismic tools. Also in 2004, Sercel acquired a 51% stake in the capital of Sercel-JunFeng Geophysical Equipment Co Ltd, a Chinese company based in Hebei, China, to reinforce Sercel's manufacturing capabilities for geophones, cables and connectors.

As a result of these acquisitions, Sercel is a market leader in the development and production of both marine and land geophysical equipment. It is a global provider for the seismic acquisition industry with a balanced industrial position in terms of both product range and geographical presence.

*Business Development Strategy.* Our strategy for the Products segment is to:

use the business acquisitions made in 2003 and 2004 to expand Sercel's range of products or improve existing technology and strengthen its leading position in the geophysical equipment market; and

maintain Sercel's leading position in the seismic data equipment market by capitalizing on growth opportunities resulting from the strength of its current product base, the application of new technologies in all of its products as well as from its diversified geographical presence.

**Backlog**

Backlog for our Services segment represents the revenues we expect to receive from commitments for contract services we have with our customers and, in connection with the acquisition of multi-client data, represents the amount of pre-sale commitments for such data. Backlog for our Products segment represents the total value of orders we have received but not yet fulfilled.

Backlog estimates are based on a number of assumptions and estimates, including assumptions as to exchange rates between the euro and the U.S. dollar and estimates of the percentage of completion contracts. Contracts for services are occasionally modified by mutual consent and in certain instances are cancelable by the customers on short notice without penalty. Consequently, our backlog as of any particular date may not be indicative of our actual operating results for any succeeding period.

We estimate that our total backlog as of March 1, 2005, stood at \$475 million (\$350 million for Services and \$125 million for Products, excluding intra-group sales), up 41% from \$337 million as of March 1, 2004 (\$207 million for Services and \$130 million for Products, excluding intra-group sales).

**Seasonality**

Our land and marine seismic acquisition activities are seasonal in nature. We generally experience decreased revenues in the first quarter of each year due to the effects of weather conditions in the Northern Hemisphere and

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to the fact that our principal clients are generally not prepared to fully commit their annual exploration budget to specific projects during that period.

We have historically experienced higher levels of activity in our equipment manufacturing operations in the fourth quarter as our clients seek to fully deploy annual budgeted capital.

### **Intellectual Property**

We continually seek the most effective and appropriate protection for our products, processes and software and, as a general rule, will file for patent, copyright or other statutory protection whenever possible. Our patents, trademarks, service marks, copyrights, licenses and technical information collectively represent a material asset to our business. However, no single patent trademark, copyright, license or piece of technical information is of material importance to our business when taken as a whole. As of December 31, 2004, we held 144 patents in respect of different products and processes worldwide. The duration of these patents varies from four to 20 years, depending upon the date filed and the duration of protection granted by each country.

### **Competition**

*General.* Most contracts are obtained through a competitive bidding process, which is standard for the industry in which we operate. Important factors in awarding contracts include service quality, technological capacity, performance, reputation, experience of personnel, customer relations and long-standing relationships, as well as price. While no single company competes with us in all of our segments, we are subject to intense competition with respect to each of our segments. We compete with large, international companies as well as smaller, local companies. In addition, we compete with major service providers and government-sponsored enterprises and affiliates. Some of our competitors operate more data acquisition crews than we do and have substantially greater financial and other resources.

*Land.* The land seismic market is extremely fragmented and characterized by intense price competition. The entrance of a significant number of Chinese competitors seeking to expand their international market share beginning in 2000 has driven down prices in this sector and decreased the market share of established participants. In addition, certain very active services markets, such as China and Russia, are not practically accessible to international services providers like us. The most significant service providers in land are Western Geco and BGP. We believe that price is the principal basis of competition in this market, although relationships with local service providers are important, as is experience in unusual terrain.

*Offshore.* The offshore sector has four leading participants: Western Geco, PGS, CGG and Veritas. From 1999 to mid-2004, the offshore market experienced excess supply, which put downward pressure on prices. Because of the high fixed costs in this sector, excess supply has not been reduced by operators but rather channeled into multi-client libraries. With supply flat in 2003 and 2004, however, and demand gradually increasing, prices have recovered significantly in this market, though they remain below pre-1999 levels.

*Processing.* The processing sector is led by Western Geco, CGG and Veritas. This market is characterized by greater client loyalty than the acquisition sector, as evidenced by the presence of processing centers on client premises. Processing capacity has multiplied in recent years as a result of improvements in computing technology. This increase in computing power has allowed improved processing and the use of more complex and accurate algorithms.

*Products.* Our principal competitor for the manufacture of seismic survey equipment is Input/ Output Inc. The market for seismic survey equipment is highly competitive and is characterized by continual and rapid technological change. We believe that technology is the principal basis for competition in this market, as oil and gas companies have increasingly demanded new equipment for activities such as reservoir management and data acquisition in difficult terrain. Oil and gas companies have also become more demanding with regard to the quality of data acquired. Other competitive factors include price and customer support services.

**Table of Contents****Organizational Structure**

We are the parent company of the CGG group. Our principal subsidiaries are as follows:

<b>Subsidiary</b>	<b>Jurisdiction of Organization</b>	<b>Head office</b>	<b>% of interest</b>
Sercel SA	France	Carquefou, France	100.0
CGG Marine SAS	France	Massy, France	100.0
CGG Americas, Inc.	United States	Houston, Texas, United States	100.0
CGG Marine Resources Norge A/S	Norway	Hovik, Norway	100.0
Compañía Mexicana de Geofísica	Mexico	Mexico City, Mexico	100.0
CGG do Brazil Participações Ltda	Brazil	Rio de Janeiro, Brazil	100.0
Sercel Inc.	United States	Tulsa, Oklahoma, United States	100.0

**Property, Plant and Equipment**

The following table sets forth certain information as of December 31, 2004 relating to our principal properties.

<b>Location</b>	<b>Type of facilities</b>	<b>Size</b>	<b>Owned/ Leased</b>	<b>Lease Expiration Date</b>
Paris, France	Executive offices for the CGG group	725 m <sup>2</sup>	Leased	2009
Massy, France	Principal administrative offices for the CGG group	9,174 m <sup>2</sup>	Leased	2005
Massy, France	Data processing center	7,371 m <sup>2</sup>	Owned	
Massy, France	Activities include research and development and manufacture of seismic borehole tools	1,108 m <sup>2</sup>	Leased	2010
London, England	Data processing center	2,320 m <sup>2</sup>	Leased	2011
Surrey, England	Administrative offices	2,095 m <sup>2</sup>	Leased	2010
Houston, U.S.A.	Offices of CGG Americas, Inc.	6,905 m <sup>2</sup>	Leased	2007
Houston, U.S.A.	Offices and manufacturing premises of Sercel	24,154 m <sup>2</sup>	Leased/ Owned	2007
Brest, France	Activities include research and development and manufacture of underwater acoustic devices	322 m <sup>2</sup>	Leased	2008
Carquefou, France	Factory of Sercel. Activities include research and development relating to, and manufacture of, seismic data recording equipment	23,318 m <sup>2</sup>	Owned	
Saint Gaudens, France	Factory of Sercel. Activities include research and development relating to, and manufacture of, geophysical cables, mechanical equipment and borehole seismic tools.	16,000 m <sup>2</sup>	Owned	





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<b>Location</b>	<b>Type of facilities</b>	<b>Size</b>	<b>Owned/ Leased</b>	<b>Lease Expiration Date</b>
Toulon, France	Factory of Sercel. Activities include research and development relating to, and marketing of, air guns.	6,695 m <sup>2</sup>	Owned	
Sydney, Australia	Activities include research and development relating to, and manufacture and marketing of, marine streamers.	7,096 m <sup>2</sup>	Leased	2006
Xu Shui, China	Activities include research and development relating to, and manufacture of, geophones	59,247m <sup>2</sup>	Leased	2053
Calgary, Canada	Manufacture of geophysical cables.	8,357 m <sup>2</sup>	Owned	
Alfreton, England	Manufacture of geophysical cables.	5,665 m <sup>2</sup>	Owned	
Singapore	Manufacture of geophysical cables.	5,595 m <sup>2</sup>	Owned	

We also lease other offices worldwide to support our operations. We believe that our existing facilities are adequate to meet our current requirements.

The following table provides certain information concerning the 3D seismic vessels operated by the Offshore SBU during 2004:

<b>Vessel Name</b>	<b>Year Built</b>	<b>Year Added to Fleet</b>	<b>Year Reconfigured</b>	<b>Charter Expires</b>	<b>Number of Streamers</b>	<b>Vessel Length (in meters)</b>
CGG Föhn	1985	1985	1997	2006	8 <sup>(1)</sup>	84.5
CGG Harmattan	1993	1993	1996	2006	8 <sup>(1)</sup>	96.5
CGG Alizé	1999	1999		2007	10	100.0
Laurentian <sup>(2)</sup>	1983	2003		2006	N/A	84.4
CGG Amadeus	1999	2001		Owned	8	87.0
CGG Symphony	1999	2001		Owned	10	120.7

(1) In high-resolution mode.

(2) Source vessel (to be upgraded to an acquisition vessel).

**Environmental Matters and Safety**

Our operations are subject to a variety of laws and regulations relating to environmental protection. We invest financial and managerial resources to comply with such laws and regulations. Although such expenditures historically

have not been material to us, and we believe that we are in compliance in all material respects with applicable environmental laws and regulations, the fact that such laws and regulations are changed frequently prevents us from predicting the cost of impact of such laws and regulations on our future operations. We are not involved in any legal proceedings concerning environmental matters and are not aware of any claims or potential liability concerning environmental matters that could have a material adverse impact on our business or consolidated financial condition.

Efforts to improve safety and environmental performance over the last few years continued as some procedures were strengthened and others implemented to increase awareness among personnel and subcontractors, including obligatory regular meetings in the field and onboard. A comprehensive Health, Safety and Environment management system, placing particular emphasis on risk management, has been established to cover all activities and is being continuously adapted for each segment.

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### **Legal Proceedings**

From time to time we are involved in legal proceedings arising in the normal course of our business. We do not expect that any of these proceedings, either individually or in the aggregate, will result in a material adverse effect on our consolidated financial condition or results of operations. See also Directors, Senior Management and Employees Board Practices Audit Committee.

### **Item 5: OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

#### **Operating Results**

The following operating and financial review and prospects should be read in connection with our consolidated financial statements and the notes thereto included elsewhere in this annual report, which have been prepared in accordance with French GAAP.

Beginning with our financial statements for fiscal year 2001, French GAAP as they relate to us differed in certain significant respects from U.S. GAAP, and we adopted French GAAP for reporting of our primary financial statements for fiscal year 2001 and future years. The differences between French GAAP and U.S. GAAP as they relate to us, and a reconciliation of net income and shareholders' equity to U.S. GAAP are described in Note 28 to our consolidated financial statements.

We adopted IFRS as our primary accounting principles from January 1, 2005, and our first consolidated financial statements under IFRS will be those as of and for the three months ended March 31, 2005. We will present restated financial statements under IFRS as of and for the three months ended March 31, 2004. See Transition to IFRS Accounting below.

#### **Factors Affecting Results of Operations**

##### *General*

We divide our businesses into two segments, geophysical services and geophysical products. Operationally, our Services segment is conducted through both CGG and our subsidiaries organized into three strategic business units, or SBUs:

the Land SBU for land and shallow water seismic acquisition activities;

the Offshore SBU for marine seismic acquisition and multi-client library sales; and

the Processing & Reservoir SBU for seismic data processing, data management and reservoir studies.

Our Products segment is made up of our equipment development and manufacturing activities, which we conduct through Sercel and its subsidiaries.

Overall demand for geophysical services is dependent upon spending by oil and gas companies for exploration, production development and field management activities. We believe the level of spending depends on the perception of oil and gas companies of the relationship between proven future reserves and their expectations regarding future energy consumption.

After many years of strong growth, the geophysical market in 1999, following a sharp drop in the price of oil, experienced a deep recession, which we believe resulted in a reduction of more than 40% in industry revenues compared to 1998. The geophysical market (particularly the offshore segment) has gradually improved since 1999 in terms of both volumes of sales and prices (with an acceleration since mid-2004). However, despite this improvement and significantly increased oil and gas prices, the seismic services market has not yet returned to pre-1999 activity or price levels.

We believe that two factors have contributed to the unusual situation in recent years of increasing oil and gas prices but a weak seismic services market. First, global geopolitical uncertainty, particularly following the events of September 11, 2001 and the conflict in Iraq in 2003, has harmed the confidence and visibility that are essential to our clients' long term decision-making processes. As a consequence, they have delayed or cancelled many projects. Second, geophysical service providers have generally not reacted efficiently to the difficult industry

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environment and have, in particular, failed to adjust their capacity in response to reduced demand. As a result, excess supply in the seismic services market has applied downward pricing pressure through the first half of 2004.

We believe that during 2004, oil and gas companies (including both the major multinational oil companies and the national oil companies) and the large oil and gas consuming nations became aware of a growing and potentially lasting imbalance between the supply and demand for hydrocarbons. A rapid rise in world consumption requirements, particularly in China and India, resulted in demand growing more rapidly than anticipated. At the same time, the excess production capacity of OPEC appears to have reached historical lows, focusing attention on existing production capacities and available reserves. These market pressures from the both the supply and demand sides produced a sharp rise in oil and gas prices.

This recognition of a possible structural imbalance between hydrocarbon supply and demand may lead the oil and gas industry to increase capital expenditures in exploration and production, which we expect would be beneficial for the seismic services market. We believe that seismic services are an important element of efforts to find new reserves and to extract more oil from existing reservoirs.

While this new market situation may lead to improve sales volumes and prices for geophysical products and services, our belief that the seismic industry should consolidate remains unchanged. We believe that the goal of any such consolidation would be to exploit synergies and to promote the emergence of seismic operators possessing larger financial and technological bases.

***Land SBU restructuring plan***

Our results of operations in recent years have been affected by increasingly intense competition in the land acquisition markets, particularly as Chinese seismic services entrants have expanded their international market share. This situation led us to reassess our strategy and geographical presence in certain land acquisition markets.

In response, we launched a restructuring program in September 2003 to substantially lower our fixed costs, which included a workforce reduction affecting 250 employees and the disposal of seismic acquisition inventories and assets for a total cost of 19 million.

In 2004, we spent 11.0 million on the restructuring plan out of a 12.1 million provision in our books at December 31, 2003. Both in terms of cost savings and operational reorganization, the restructuring plan is progressing in conformity with its initial objectives.

***Acquisitions and Disposals***

On May 21, 2002, Talamantes B.V., a Dutch company, and Paradigm Geophysical Ltd ( PGEO ), a company in which we owned ordinary shares, entered into a merger agreement providing for the merger of PGEO into Talamantes or one of its subsidiaries. Pursuant to the merger agreement, each of PGEO s outstanding ordinary shares was converted into the right to receive U.S.\$5.15 in cash when the merger was completed, which took place on August 13, 2002. We received a total of U.S.\$7.7 million in merger consideration. A 2 million loss was recorded under the item Other Revenues and Expenses .

On December 27, 2002, we agreed to sell our borehole seismic data acquisition business to Baker Atlas, a division of Baker Hughes Incorporated, for a purchase price of U.S.\$12 million ( 11.4 million) and agreed to form a joint venture with Baker Atlas for the processing and interpretation of borehole seismic data. Baker Hughes paid 90% of the consideration for the transaction on December 27, 2002, and simultaneously acquired certain assets and intellectual property of our borehole seismic data acquisition business. The remaining 10% was transferred on February 2003, at which time the employees and contracts of the ongoing business were also transferred to Baker Hughes. On June 4, 2003, we and Baker Atlas launched our joint venture, VS Fusion, in which we hold a 49% equity interest.

On October 15, 2003, Sercel acquired for cash Sodera S.A, a French company specializing in the production of air guns for marine seismic acquisition activities, for a purchase price of U.S.\$4.7 million ( 4.2 million).

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On January 2, 2004, Sercel acquired the seismic equipment business of Thales Underwater Systems Pty Ltd (TUS). This business includes the development and manufacturing of surface marine seismic acquisition systems, particularly solid streamers, and seabed marine seismic acquisition systems. The purchase price was 21.7 million, subject to a price adjustment that may entail an additional payment in 2005 and/ or 2006 based on revenues.

On January 8, 2004, Sercel acquired a 51% majority equity stake in Hebei JunFeng Geophysical Co. Ltd., a provider of geophones and seismic cables for the Chinese seismic market, for a purchase price of 9.8 million. Hebei JunFeng Geophysical Co. Ltd., located in the Hebei province, was originally created by BGP, the largest Chinese geophysical services contractor. BGP will remain a shareholder of the company along with the management, the employees, and XPEIC, a Chinese geophysical equipment company.

On February 19, 2004, Sercel acquired Orca Instrumentation, a French company that develops and markets marine acquisition systems and underwater data transmission systems, for a purchase price of 1.3 million.

On March 3, 2004, Sercel acquired of Createch Industrie, a French company specializing in borehole measurement tools, borehole seismic tools and permanent borehole sensors, for a purchase price of 1.9 million.

On September 23, 2004, Kantwell Overseas Shipping Co, in which we owned a 50% interest, was liquidated. Kantwell had owned the seismic vessel the *CGG Mistral*, which sank in December 2002. We recorded a foreign exchange loss of 3.8 million under the item Exchange gains (losses) net in connection with this liquidation (realization of currency translation adjustment).

In September 2002, we took a 7.5% equity stake in the share capital of one of our competitors, the Norwegian company Petroleum Geo Services ASA ( PGS ), for a total price of U.S.\$7.0 million. After a U.S. bankruptcy court approved a restructuring plan between PGS and its creditors on October 21, 2003 and the plan was implemented, we held 867,753 shares of PGS (4.3% of the share capital) for a total investment of approximately U.S.\$18 million. In December 2003, we sold 400,000 shares of PGS on the market, reducing our total holdings to 467,753 shares (2.3% of PGS s share capital). The sales price was U.S.\$13 million and produced a gain of 2.5 million before tax.

On September 2, 2004, we made an offer to acquire the PGS seismic business for a total consideration of U.S.\$900 million, comprising U.S.\$800 million in cash and U.S.\$100 million in our shares. Given the negotiating gap existing between the parties, in particular concerning the valuation of the transaction and further exacerbated by the perception of a recently improving seismic market, we withdrew our offer on October 5, 2004. In October and November 2004, we sold our remaining 467,753 shares of PGS for 17.2 million; the gain to us was 7.9 million before and after tax and was recorded as Other Revenues and Expenses .

On February 14, 2005, we ended our cooperation agreements with PT Alico. On that date, PT Alico, which was fully consolidated in our accounts until 2004 as a consequence of our contractual relationship with them, was excluded from our scope of consolidation. Under our agreements with PT Alico, we indemnified them against certain specific risks. This liability is limited and has been accrued in the financial statements as of December 31, 2004. The liability will expire on June 30, 2006, at which date we will have no further commitment to PT Alico or its shareholders.

***Foreign Exchange Fluctuations***

As a company that derives a substantial amount of its revenue from sales internationally, our results of operations are affected by fluctuations in currency exchange rates. In each of the years ended December 31, 2004, 2003 and 2002, over 90% of our operating revenues and approximately two-thirds of our operating expenses were denominated in currencies other than the euro. These included the U.S. dollar and, to a significantly lesser extent, other non-euro Western European currencies, principally the British pound and the Norwegian kroner. In addition, a significant portion of our revenues that were invoiced in euros related to contracts that were effectively priced in U.S. dollars, as the U.S. dollar often serves as the reference currency when bidding for contracts to provide geophysical services.

Fluctuations in the exchange rate of the euro against such other currencies, particularly the U.S. dollar, have had in the past and can be expected in future periods to have a significant effect upon our results of operations.

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Since we participate in competitive bids for data acquisition contracts that are denominated in U.S. dollars, an appreciation of the U.S. dollar against the euro improves our competitive position against that of other companies whose costs and expenses are denominated in U.S. dollars. For financial reporting purposes, such appreciation positively affects our reported results of operations since U.S. dollar-denominated earnings that are converted to euros are stated at an increased value. A depreciation of the U.S. dollar against the euro, such as has occurred since the second half of 2003, has the opposite effect.

In order to present trends in our business that may be obscured by currency fluctuations, we have translated certain euro amounts in this Operating and Financial Review and Prospects into U.S. dollars.

***Critical Accounting Policies***

Our significant accounting policies, which we have applied consistently in all material respects for all periods presented, are more fully described in Note 1 to our consolidated annual financial statements contained in this annual report. However, certain of our accounting policies are particularly important to the presentation of our financial position and results of operations. As we must exercise significant judgment when we apply these policies, their application is subject to an inherent degree of uncertainty. We believe the following critical accounting policies require our more significant judgments and affect estimates used in the preparation of our consolidated financial statements.

***Multi-client survey accounting***

Multi-client surveys consist of seismic surveys to be licensed to customers on a non-exclusive basis. All costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized into the multi-client library. The value of our multi-client library is stated on our balance sheet at the aggregate of those costs less accumulated amortization or at fair value, if lower. We review the library for potential impairment of our independent surveys on an ongoing basis.

***Revenue recognition:***

Revenues related to multi-client surveys result from pre-commitments and licenses after completion of the surveys ( after-sales ).

***Pre-commitments*** Generally, we obtain pre-commitments from a limited number of customers before a seismic project is completed. These pre-commitments cover part or all of the survey area blocks. In return for the pre-commitment, the customer typically gains the ability to direct or influence the project specifications, advance access to data as it is being acquired, and favorable pricing.

We recognize pre-commitments as revenue in each period based on the ratio of project cost incurred during that period to total estimated project cost. We believe this ratio to be generally consistent with the physical progress of the project.

***After-sales*** Generally, we grant a license entitling non-exclusive access to a complete and ready for use, specifically defined portion of our multi-client data library in exchange for a fixed and determinable payment. We recognize after sales revenue upon the client executing a valid license agreement and having been granted access to the data. Within thirty days of execution and access, the client may exercise our warranty that all the data conforms to technical specifications.

***After-sales volume agreements*** We enter into a customer arrangement in which we agree to grant licenses to the customer for access to a specified number of blocks of the multi-client library. These arrangements typically enable the customer to select and access the specified blocks for a limited period of time. We recognize revenue when the blocks are selected and the client has been granted access to the data.

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*Amortization:*

We amortize the multi-client surveys over the period during which the data is expected to be marketed using a pro-rata method based on recognized revenues as a percentage of total estimated sales (such estimation relies on the historical sales track record).

In this respect, we use three different sets of parameters depending on the area or type of surveys considered:

Gulf of Mexico surveys are amortized on the basis of 66.6% of revenues. Starting at the time of data delivery, a minimum straight-line depreciation scheme is applied on a three years period, should total accumulated depreciation from the 66.6% of revenues amortization method be below this minimum level;

*Rest of the world surveys:* same as above, except depreciation is 83.3% of revenues and straight-line depreciation is over a five year period from data delivery; and

Long term strategic 2D surveys are amortized on the basis of revenues according to the above area split and straight-line depreciation over a seven years period from data delivery.

*Exclusive survey accounting (Proprietary/ Contract services)*

In exclusive surveys, we perform seismic services for a specific customer. We recognize proprietary/ contract revenue as the services are rendered. We recognize exclusive survey revenue in each period based on the ratio of project cost incurred during that period to total estimated project cost. We believe this ratio to be generally consistent with the physical progress of the project.

*Other geophysical services*

Revenue from our other geophysical services is recognized as the services are performed.

*Goodwill amortization and impairment of long-lived assets*

We amortize goodwill on a straight-line basis over future periods of benefit, as estimated by management, which may range from five to twenty years. We select the period of benefit based on the strategic significance of the asset acquired.

We assess the impairment of identifiable intangibles, long-lived assets and goodwill whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important that could trigger an impairment review include the following:

significant underperformance relative to expected operating results based upon historical and/or projected data;

significant changes in the manner of our use of the acquired assets or the strategy for our overall business; and

significant negative industry or economic trends.

When we determine that the carrying value of intangibles, long-lived assets and goodwill may not be recoverable based upon the existence of one or more of the above indicators of impairment, we compare the carrying value of each group of autonomous assets (independent operating units or subsidiaries) with the undiscounted cash flows that they are expected to generate based upon our expectations of future economic and operating conditions. Should this comparison indicate that an asset is impaired, the write-down recognized is equivalent to the difference between carrying value and either value or the sum of discounted future cash flows.

**Table of Contents****Year ended December 31, 2004 compared to year ended December 31, 2003*****Operating Revenues***

Our consolidated operating revenues for 2004 increased 13% to 692.7 million from 612.4 million for 2003. Because approximately 80% of our operating revenues for 2004 and 81% for 2003 were denominated in U.S. dollars, the decrease in the value of the U.S. dollar had a negative impact on our operating revenues as expressed in euros in our financial statements. Expressed in U.S. dollars, our consolidated operating revenues for 2004 increased 25% to U.S.\$861.7 million from U.S.\$689.2 million for 2003. This increase was primarily attributable to an increase in operating revenues in our Products segment, as well as to recent business acquisitions and the performance of our Offshore SBU.

*Services*

Operating revenues for our Services segment (excluding internal sales) for 2004 decreased 5% to 393.3 million from 413.2 million for 2003. Expressed in U.S. dollars, however, operating revenues for 2004 increased 6% to U.S.\$489.4 million from U.S.\$463.6 million for 2003. This increase is due to our Offshore SBU and, to a lesser extent, to our Processing & Reservoir SBU.

*Land SBU.* Operating revenues for our Land SBU for 2004 decreased 47% to 77.3 million compared to 144.5 million for 2003. In U.S. dollars, operating revenues for 2004 decreased 41% to U.S.\$95.8 million from U.S.\$161.5 million for 2003. Beyond the downsizing of our Land SBU in 2003, this decrease was the consequence of intense competition, which affected both prices and volumes of sales, resulting in a very weak mid-year backlog. These factors affected operating revenues for the second half of 2004, although we experienced a recovery in backlog at the end of the year as our clients increasingly engaged our services to assist them in finding reserves and extract more oil from existing reservoirs. On average, 12 crews were in operation in 2004 compared to 17 in 2003.

*Offshore SBU.* Operating revenues for our Offshore SBU for 2004 increased 34% to 211.0 million from 157.1 million for 2003. In U.S. dollars, operating revenues for 2004 increased 49% to U.S.\$263.1 million from U.S.\$176.5 million for 2003. This increase is due to increased volumes of sales, principally exclusive surveys, as well as, toward the end of 2004, increased prices.

Revenues from exclusive surveys for 2004 increased 111% to 103.1 million from 48.8 million for 2003. Exclusive surveys accounted for 49% of our Offshore SBU sales for 2004 compared to 31% for 2003 as we allocated more seismic vessels to exclusive contracts in response to demand. Multi-client data sales in the aggregate remained largely stable at 107.9 million for 2004 and 108.3 million for 2003. Reflecting changes in market demand, pre-commitment sales decreased 45% for 2004 to 39.0 million from 71.6 million for 2003. However, within an overall stable revenue environment for multi-client surveys, multi-client data after-sales for 2004 increased 88% to 68.9 million from 36.7 million for 2003, mainly in the Gulf of Mexico and in Brazil. The net book value of our marine multi-client data library was 124.6 million as of December 31, 2004 compared to 145.0 million as of December 31, 2003.

*Processing & Reservoir SBU.* Operating revenues for our Processing & Reservoir SBU for 2004 decreased 6% to 105.0 million from 111.6 million for 2003. In U.S. dollars, operating revenues for 2004 increased 4% to U.S.\$130.4 million from U.S.\$125.6 million for 2003 in spite of price decreases, due in part to the introduction of the depth imaging services market in the Gulf of Mexico.

*Products*

Operating revenues for our Products segment (including intra-group sales) for 2004 increased 45% to 313.6 million from 216.9 million for 2003. Expressed in U.S. dollars, such revenues for 2004 increased 59% to U.S.\$389.9 million from U.S.\$245.4 million for 2003. Approximately one-third of this increase is attributable to the business acquisitions in 2004 described under the heading *Acquisitions and Disposals* above. Excluding intra-group sales, revenues for 2004 increased 50% to 299.4 million compared to 199.2 million for 2003. Sales of land products expressed in dollars experienced solid growth, reflecting the continuing success of our 408UL system in an active land products market, which includes certain geographical markets, such as China and



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Russia, not practically accessible to international service providers such as us. Sales of marine products more than doubled in dollar terms from a difficult 2003 as a combined result of improved acceptance of the Seal system (which features flexible architecture) and our business acquisitions in 2004.

**Operating Expenses**

Cost of operations, including depreciation and amortization, for 2004 increased 13% to 556.0 million from 491.0 million for 2003, in line with our operating revenues. As a percentage of operating revenues, cost of operations was 80% for both 2004 and 2003. Gross profit for 2004 increased 13% to 136.7 million from 121.4 million for 2003.

Depreciation and amortization for 2004 decreased 2.1% to 71.4 million from 72.9 million in 2003. Depreciation of our multi-client library accounted for an additional 66.5 million of depreciation for 2004 and 80.0 million for 2003.

Selling, general and administrative expenses for 2004 increased 1% to 79.5 million from 78.8 million for 2003. As a percentage of operating revenues, selling, general and administrative costs for 2004 decreased to 11% compared to 13% for 2003.

Research and development expenditures for 2004, net of government grants, increased 25% to 33.5 million from 26.9 million for 2003 due to development efforts in the Products segment and expenses of our business acquisitions in 2004.

Other income net of expenses for 2004 increased to 12.0 million from negative 5.1 million for 2003. Other income net of expenses for 2004 consisted essentially of:

Gain of 7.9 million on the disposal of our PGS shares (which we did not allocate specifically to either of our business segments),

Gain of 2.2 million on the disposal of a building (allocated to the Services segment),

Gain of 1.8 million from indemnities paid by our insurance companies in respect of the seismic vessel the *CGG Mistral* (allocated to the Services segment),

Gain of 1.4 million resulting from the sale of CGG shares (which we did not allocate specifically to either of our business segments),

Expenses of 4.3 million from the early redemption of \$75 million of our 108% Senior Notes due 2007 (which we did not allocate specifically to either of our business segments).

**Operating Income (Loss)**

Our operating income for 2004 increased to 35.7 million from 10.6 million for 2003. 17.1 million of the increase was attributable to variation in other income net of expenses as identified immediately above. 8.0 million of the increase was due to improved operational results in 2004, partly offset by a 10% negative exchange rate impact due to the increase in value of the euro against the U.S. dollar in 2004.

Operating loss from our Services segment for 2004 decreased to 18.8 million from 29.8 million for 2003. The increase of Offshore services prices, the high utilization rate of our vessels and the high level of multi-clients data sales explain the decreased loss in spite of a negative exchange rate impact of the increase in value of the euro against the U.S. dollar in 2004.

Operating income from our Products segment for 2004 increased to 57.3 million from 42.9 million in 2003. The increase in operating income was primarily due to a strong increase in operating revenues (including from newly acquired businesses) despite the negative exchange rate impact of the increase in value of the euro against the U.S. dollar in 2004 and a higher proportion of Offshore equipment sales (which generally bear lower margins).

**Table of Contents*****Financial Income and Expenses, Net***

Net financial expenses for 2004 increased 7% to 22.4 million from 21.0 million for 2003. Expressed in U.S. dollars, net financial expenses were stable before taking into account a provision of 4.1 million in 2003 for unrealized losses on our PGS shares.

Net debt was 139.2 million as of December 31, 2004 and December 31, 2003. This stability is principally due to the combined effect of the net cash provided by operating activities for 2004 of 91.9 million compared to 180.5 million in 2003, the net cash used for investing activities for 2004 of 100.1 million compared to 163.8 million in 2003 and an exchange rate effect that lowered the euro value of our U.S. dollar denominated debt. The variations in net cash provided by operating activities and used in investing activities are explained under the heading Liquidity and Capital Resources .

Gross interest expenses for 2004 decreased 7.7% to 24.6 million from 28.2 million for 2003. Financial income, resulting largely from interest on overnight deposits, was 3.0 million for both 2004 and 2003.

Foreign exchange gain for 2004 decreased 4.3% to 4.4 million from 4.6 million for 2003. Foreign exchange gain for 2004 included an exchange loss of 3.8 million from the liquidation of Kantwell Overseas Shipping Co. on September 23, 2004, offset by the favorable impact of our hedging policy. In connection with hedging our currency exposure risks, we hedge the U.S. dollar by forward sales, which can have either a favorable or adverse impact on financial result depending on the actual variation in the exchange rate for the euro and the U.S. dollar. See Item 11: Quantitative and Qualitative Disclosures on Market Risk .

***Equity in Income of Affiliates***

Income from investments accounted for under the equity method for 2004 increased to 10.3 million from 6.5 million for 2003, which corresponds largely to our share in the income of Argas, our Saudi Arabian joint venture, which was 10.4 million for 2004 and 7.0 million for 2003.

***Income Tax Expenses***

Income tax expenses for 2004 increased to 9.7 million from 3.1 million in 2003 and included a deferred tax credit of 10.4 million, which corresponded to the value of Sercel Inc.'s net operating loss carryforwards (U.S.\$24.7 million) and temporary differences assets (U.S.\$10.1 million) at the current United States corporate tax rate of 35%. This increase is primarily due to the increase of taxable income in the United States that, beginning in 2004, can no longer be offset by net operating loss carryforwards in 2004 and to the high level of U.S. multi-client survey sales.

Because we earn a majority of our taxable income outside of France, foreign taxation significantly affects our overall income tax expense. We are not subject to a worldwide taxation system, and the income tax paid in foreign countries, mainly based on revenues, does not generate comparable tax credits in France.

***Net Income (Loss)***

Net income for 2004 was 11.1 million compared to a net loss of 10.4 million for 2003. Net income for 2004 reflects minority interest of 1.0 million, primarily from our 51% interest in Sercel JunFeng.

**Year ended December 31, 2003 compared to year ended December 31, 2002*****Operating Revenues***

Our consolidated operating revenues for 2003 decreased 13% to 612.4 million from 700.7 million for 2002. Because 81% of our operating revenues in 2003 and 87% in 2002 were denominated in U.S. dollars, the decrease in the value of the U.S. dollar had a negative impact on our operating revenues as expressed in euros in our financial statements. Expressed in U.S. dollars, our consolidated operating revenues increased 4% to U.S.\$689.2 million from U.S.\$665.1 million in 2002. This increase was primarily attributable to increases in operating revenues in our Products segment and, to a lesser extent, in our Processing & Reservoir SBU.

**Table of Contents***Services*

Operating revenues for our Services segment (excluding internal sales) for 2003 decreased 19% to 413.2 million from 507.6 million for 2002. Expressed in U.S. dollars, operating revenues decreased 4% to U.S.\$463.6 million for 2003 from U.S.\$482.9 million for 2002 due primarily to decreased revenues from our Land and Offshore SBUs.

*Land SBU.* Operating revenues for our Land SBU for 2003 decreased 22% to 144.5 million compared to 184.6 million for 2002. In U.S. dollars, operating revenues decreased 8% to U.S.\$161.5 million for 2003 from U.S.\$176.1 million for 2002. This decrease resulted from increased competition, which caused mid-year backlog to be weak and affected operating revenues for the third quarter of 2003. On average, 17 crews were in operation in 2003 compared to 15 in 2002.

*Offshore SBU.* Operating revenues for our Offshore SBU for 2003 decreased 21.4% to 157.1 million from 199.8 million for 2002. In U.S. dollars, operating revenues decreased 7% to U.S.\$176.5 million for 2003 from U.S.\$190.1 million for 2002. This decrease was attributable to our lower capacity following the loss of the *CGG Mistral*, one of our seismic vessels, in December 2002, the sale of our borehole seismic activity in December 2002 and weak demand in multi-client surveys.

Exclusive sales for 2003 decreased 26% to 48.8 million from 66.0 million in 2002. Exclusive surveys accounted for 31% of our Offshore SBU sales in 2003 compared to 33% in 2002. In the aggregate, multi-client data sales (both pre-commitments and after-sales) decreased 19% to 108.3 million for 2003 from 133.8 million for 2002, primarily due to lower after-sales in the Gulf of Mexico. Multi-client pre-commitments for 2003 decreased 18% to 71.6 million from 87.3 million in 2002. Multi-client data after-sales for 2003 also decreased 21% to 36.7 million from 46.5 million in 2002. The net book value of our marine multi-client data library was 145.0 million as of December 31, 2003 compared to 125.8 million as of December 31, 2002.

*Processing & Reservoir SBU.* Operating revenues for our Processing & Reservoir SBU for 2003 decreased 9% to 111.6 million compared to 123.2 million for 2002. In U.S. dollars, operating revenues increased 8% to U.S.\$126.0 million for 2003 from U.S.\$116.7 million for 2002 due to our increased market share in Southeast Asia, the wider use of high end imaging technology and new dedicated centers working exclusively with certain clients.

*Products*

Operating revenues for our Products segment (including intra-group sales) for 2003 decreased 17% to 216.9 million from 262.4 million for 2002. Expressed in U.S. dollars, operating revenues decreased 1% to U.S.\$245.4 million for 2003 from U.S.\$247.4 million for 2002. Excluding intra-group sales, operating revenues increased 3% to 199.2 million for 2003 compared to 193.1 million for 2002. Sales of land products expressed in dollars increased 29% for 2003 compared 2002 due to the wide acceptance of our 408 UL recording system in a recovering land products market, which includes certain geophysical markets, such as China and Russia, not practically accessible to international services providers. Due to the scarcity of new vessels or significant vessel upgrades, demand for marine products remained low in 2003 compared to 2002 when several Seal systems had been sold to various customers, including to our services segment.

**Operating Expenses**

Cost of operations, including depreciation and amortization, decreased 8% to 491.0 million for 2003 from 531.4 million for 2002. As a percentage of operating revenues, cost of operations increased to 80% for 2003 compared to 76% for 2002. Because our revenues are more dollar-denominated than our costs of operations, a decrease in the value of the U.S. dollar against the euro decreases our revenues to a larger extent than our expenses. Gross profit decreased to 121.4 million for 2003 compared to 169.3 million for 2002 primarily as a result of our land restructuring program.

Depreciation and amortization for 2003 decreased 46% to 72.9 million from 134.9 million in 2002. Depreciation of our multi-client library accounted for an additional 80.0 million of depreciation for 2003 and 87.0 million for 2002.

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Selling, general and administrative expenses decreased 9% to 78.8 million for 2003 from 86.7 million for 2002. As a percentage of operating revenues, selling, general and administrative costs increased to 13% in 2003 compared to 12% in 2002 due to the fact that more of our general and administrative costs than our revenues are euro-denominated.

Research and development expenditures, net of government grants, were stable at 27 million for 2003 and 2002.

Other expenses amounted to 5.1 million for 2003 compared to other income of 6.1 million for 2002. Other expenses for 2003 consisted essentially of (i) costs of implementing our Land SBU restructuring plan of 17.7 million, (ii) costs of implementing a Marine SBU redundancy plan of 1.5 million, (iii) a recognized gain of 4.5 million from indemnities paid by the insurance companies in respect of the *CGG Mistral* and (iv) gains of 5.2 million and

2.5 million resulting from the sale of certain Land non-exclusive surveys and the sale of 400,000 PGS shares, respectively.

***Operating Income (Loss)***

We had operating income for 2003 of 10.6 million compared to operating income of 61.6 million for 2002.

Operating loss from our Services segment for 2003 was 29.8 million for 2003 compared to operating income of 27.4 million for 2002 due to the costs of our Land SBU restructuring plan, reduced multi-client data after-sales and the negative impact of the U.S. dollar/euro exchange rate.

Operating income from our Products segment was 42.9 million for 2003 compared to 51.2 million for 2002, primarily due to the negative impact of the U.S. dollar/euro exchange rate.

***Financial Income and Expenses, Net***

Net financial expenses decreased 36% for 2003 to 21.0 million from 32.6 million for 2002. The decrease resulted primarily from the positive impact of the U.S. dollar/euro exchange rate on our U.S. dollar denominated bond interest and the reversal of the allowance on our PGS shares recorded in 2002 for an amount of 4.1 million.

Net debt was 139.2 million as of December 31, 2003 compared to 201.7 million as of December 31, 2002. This decrease was principally due to a positive free cash flow and the impact of the weaker dollar on our debt, which is mostly denominated in dollars. Gross interest expenses were 27.3 million for 2003 compared to 31.6 million for 2002. Financial income, resulting largely from interest on overnight deposits, was 3.0 million for 2003 compared to 3.4 million for 2002.

Foreign exchange gain was 4.6 million for 2003 compared to 7.9 million for 2002 due primarily to (i) the weakening of the U.S. dollar against the euro and (ii) the impact of our hedging policy. In connection with hedging our currency exposure risks, we hedge the U.S. dollar by forward sales, which can have either a favorable or adverse impact on financial result due to the actual variation in the exchange rate for the euro and the U.S. dollar.

***Equity in Income of Affiliates***

Income from investments accounted for under the equity method, which is primarily from Argas increased slightly to 6.5 million for 2003 from 6.4 million for 2002.

***Income Tax Expenses***

Income tax expenses decreased significantly to 3.1 million for 2003 from 17.4 million for 2002 due to a reduction in deferred tax liabilities resulting from the positive impact of the U.S. dollar/euro exchange rate in the calculation of temporary differences between consolidated and tax basis on our Norwegian fixed assets.

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Since we earn a majority of our taxable income outside of France, foreign taxation significantly affects our overall income tax expense. We are not subject to a worldwide taxation system, and the income tax paid in foreign countries, mainly based on revenues, does not generate comparable tax credits in France

**Net Income (Loss)**

Net loss for 2003 was 10.4 million, after deducting minority interest of 0.3 million resulting from our 50% interest in the entity that was formed for the purpose of directly owning the *CGG Mistral*, compared to a net income of 17.4 million for 2002.

Net loss for 2003 included a goodwill write-down of 1.6 million related to our Land SBU restructuring plan.

**Liquidity and Capital Resources**

Our principal needs for capital are the funding of ongoing operations, capital expenditures, investments in our multi-client data library and acquisitions. We have financed our capital needs with cash flow from operations, borrowings under bank facilities and offerings of notes. We believe that net cash provided by operating activities, the additional financial resources generated by our offerings of notes and available borrowing under bank facilities will be sufficient to meet our liquidity needs for the foreseeable future.

**Operating Activities**

Net cash provided by operating activities for 2004 was 91.9 million compared to 180.5 million for 2003. Before changes in working capital, our net cash provided by operating activities for 2004 was 117.2 million compared to 98.4 million for 2003. Changes in working capital in 2004 had a negative impact on cash from operating activities of 36.6 million (excluding 11.3 million of insurance indemnities received related to the *CGG Mistral*) compared to a positive impact of 31.6 million in 2003 (excluding 50.5 million of insurance indemnities received related to the *CGG Mistral*). This was primarily due to an increase of our accounts receivable resulting from a high level of activity at the end of 2004 and to changes in other liabilities, including payments related to our Land SBU restructuring program of 11.0 million.

Net cash provided by operating activities for 2003 was 180.5 million compared to 219.0 million for 2002. Before changes in working capital, our net cash provided by operating activities for 2003 was 98.4 million compared to 223.2 million for 2002. Changes in working capital in 2003 had a positive impact on cash from operating activities of 31.6 million (excluding 50.5 million of insurance indemnities received related to the *CGG Mistral* vessel) compared to a negative impact of 4.2 million in 2002. This was primarily due to improved management of our accounts receivable, notably in our Offshore and Product segments.

**Investing Activities**

Net cash used in investing activities for 2004 was 100.1 million compared to 163.8 million for 2003. During 2004, we incurred industrial capital expenditures of 43.0 million compared to 36.3 million in 2003, related mainly to maintenance of seismic vessels.

During 2004, we also invested 51.1 million in our multi-client library, primarily in deep offshore areas in the Gulf of Mexico and near Brazil, a decrease from our investment of 109.7 million in 2003. This decrease is a result of our decision to allocate more vessels to exclusive surveys in 2004 in response to market demand. As of December 31, 2004, the net book value of our land and marine multi-client data library was 124.5 million compared to 145.0 million as of December 31, 2003.

Acquisition capital expenditures in 2004 of 27.9 million consisted primarily of the acquisition of Thales Underwater Systems for 21.7 million, Hebei JunFeng Geophysical Co. Ltd for 9.8 million, Orca Instrumentation for 1.3 million and Createch Industrie for 1.9 million.

Proceeds from sales of assets was 23.0 million in 2004 (primarily from the sale of our PGS shares for 17.2 million) and variance in other financial assets was negative 1.1 million in 2004.

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Net cash used in investing activities for 2003 was 163.8 million compared to 241.3 million for 2002. During 2003, we incurred capital expenditures of 36.3 million, related to the acquisition of a 408UL seismic data recording system, vehicles for land surveys and maintenance of seismic vessels compared to 122.0 in 2002.

During 2003, we invested 109.7 million in our multi-client library, primarily in areas offshore in the Gulf of Mexico and Brazil, a decrease from our investment of 130.1 million in 2002. As of December 31, 2003, the net book value of our land and marine multi-client data library was 145.0 million compared to 127.1 million as of December 31, 2002.

During 2003, we also acquired Sodera for U.S.\$4.7 million and acquired PGS shares for approximately U.S.\$11.5 million as part of that company's financial restructuring plan. During 2002, we disposed of our borehole data seismic acquisition business for U.S.\$12.0 million.

As of December 31, 2004 and December 31, 2003, we had no material commitment for any capital expenditures.

**Financing Activities**

Net cash provided by financing activities for 2004 was 44.2 million, resulting primarily from the issuance of U.S.\$84,980,000 of subordinated convertible bonds in November 2004, partly offset by the repayment during the six months ended June 30, 2004 of an U.S.\$8.7 million bank facility we used to finance the streamers on the seismic vessel the *CGG Mistral*, which sank in December 2002.

Net cash used in financing activities for 2003 was 46.0 million, resulting in part from the repayment, with the insurance proceeds related to the *CGG Mistral*, of a U.S.\$20 million bank facility used to finance the hull of that vessel.

Net cash provided by financing activities for 2002 was 68.9 million, resulting primarily from the issuance of U.S.\$55 million of 10<sup>5</sup>/8% senior notes in February 2002. We also borrowed a total of U.S.\$36.9 million from a new bank facility in order to finance streamers and equipment related to the upgrade of the *CGG Mistral*.

Net debt was 139.2 million as of December 31, 2004 and 139.2 million as of December 31, 2003. The ratio of net debt to equity remained stable at 35.2% as of December 31, 2004 compared to 35.1% as of December 31, 2003.

Net debt is the amount of bank overdrafts ( 2.8 million as of December 31, 2004), plus current portion of long-term debt ( 73.1 million as of December 31, 2004), plus long-term debt ( 194.1 million as of December 31, 2004), less cash and cash equivalents ( 130.8 million as of December 31, 2004).

The following table presents a reconciliation of net debt to financing items of the balance sheet for the periods indicated:

	<b>December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions)</b>		
Bank overdrafts	2.8	3.2	10.5
Current portion of long-term debt	73.1	24.6	58.6
Long-term debt	194.1	207.8	249.2
Less cash and cash equivalents	(130.8)	(96.4)	(116.6)
<b>Net debt</b>	<b>139.2</b>	<b>139.2</b>	<b>201.7</b>

ORBDA for 2004 increased to 165.4 million from 162.3 million for 2003.

ORBDA (Operating Result Before Depreciation and Amortization, previously denominated Adjusted EBITDA) is defined as operating income (loss) excluding non-recurring revenues (expenses) plus depreciation, amortization and additions (deductions) to valuation allowances of assets and add-back of dividends received from equity companies. ORBDA is presented as additional information because our syndicated credit facility dated March 12, 2004 requires us to respect a maximum ratio of consolidated net debt to ORBDA. The maximum



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ratio of consolidated net debt to ORBDA was 2.00 to 1 for periods ending on or before December 31, 2004, compared to our actual ratio of 0.86 to 1 and 0.84 to 1 for the years ended December 31, 2003 and 2004, respectively. The maximum permitted ratio is 1.75 to 1 for subsequent periods ending on or before December 31, 2005 (revised to 2.50 to 1 in a waiver dated August 31, 2005) and 1.50 to 1 thereafter. If we fail to meet this ratio and do not obtain a waiver, we may be unable to borrow under the syndicated credit facility and may be compelled to repay amounts outstanding under the facility. Either the inability to borrow or the requirement to repay borrowed sums may have a negative effect on our liquidity and, consequently, may increase our vulnerability to general adverse economic and industry trends or limit our flexibility in adapting to such trends. ORBDA is not a measure of financial performance under French GAAP, U.S. GAAP or IFRS and should not be considered as an alternative to cash flow from operating activities or as a measure of liquidity or an alternative to net income as indicators of our operating performance or any other measures of performance derived in accordance with French GAAP, U.S. GAAP or IFRS.

The following table presents a reconciliation of Operating Results Before Depreciation and Amortization (ORBDA) to *Net cash provided by operating activities* for the periods indicated as follows:

	<b>December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in million of euros)</b>		
<b>ORBDA</b>	165.4	162.3	210.1
Interests and other financial income and expense net	(22.4)	(21.0)	(32.6)
Exchange gains net	4.4	4.6	7.9
Income tax expense	(9.7)	(3.1)	(17.4)
Deferred income tax	(12.7)	(11.6)	2.0
Other non-cash items	(7.7)	(20.1)	(19.0)
Non-recurring gains (losses)	0.1	(7.8)	69.1
Less net gain on sale of asset	(10.5)	(6.0)	(4.3)
Dividends received from equity companies		(0.7)	
Increase (decrease) in other long-term liabilities	3.6	(5.4)	5.9
(Increase) decrease in trade accounts and notes receivables	(28.5)	16.0	60.5
(Increase) decrease in inventories and work in progress	(11.0)	(0.2)	16.7
(Increase) decrease in other current assets	11.7	70.3	(77.1)
Increase (decrease) in trade accounts and notes payables	16.0	(10.6)	0.6
Increase (decrease) in other current liabilities	(13.5)	6.6	(4.9)
Less variation of current assets allowance included above	6.7	7.2	1.5
<b>Net cash provided by operating activities</b>	<b>91.9</b>	<b>180.5</b>	<b>219.0</b>

On January 26, 2005, we redeemed U.S.\$75 million principal amount of our outstanding 10<sup>5</sup>/8% senior notes due 2007. We paid an early redemption premium of 5.3125% of the principal amount of notes redeemed (U.S.\$4.0 million) plus accrued and unpaid interest.

On November 4, 2004, we issued U.S.\$84,980,000 principal amount of 7.75% subordinated bonds convertible into new ordinary shares or redeemable into new shares and/or existing shares and/or in cash, maturing in 2012, to Onex Partners LP, Onex American Holdings II LLC, Onex US Principals LP and CGG Executive Invesco, LLC. We used the net proceeds of U.S.\$79.0 million to redeem the notes described in the previous paragraph.

On March 12, 2004, CGG, CGG Marine and Sercel signed a revolving credit facility agreement of U.S.\$60 million with certain banks and financial institutions acting as lenders. The purpose of this agreement was to replace the previous multi-currency facility agreement dated September 15, 1999, as amended on August 31, 2000,



which was cancelled. The lenders were granted a lien on the accounts receivable of CGG, CGG Marine and Sercel S.A. The facility has a term of three years and will begin amortizing after March 11, 2006, one year from its final maturity. It is currently undrawn.

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On February 5, 2002, we issued an additional U.S.\$55 million aggregate principal amount of 10<sup>5</sup>/8% senior notes due 2007 at par value in the international capital markets, following our original issuance of senior notes in November 2000. With the net proceeds of approximately U.S.\$52.5 million, we repaid approximately U.S.\$22 million of outstanding indebtedness under our existing syndicated credit facility and approximately U.S.\$10 million in other long-term revolving debt and used the balance for general corporate purposes.

On November 22, 2000, we issued U.S.\$170 million aggregate principal amount of 10<sup>5</sup>/8% senior notes due 2007 in the international capital markets. We used the approximately \$164.9 million of net proceeds to repay a portion of outstanding indebtedness under our existing syndicated credit facility and to fund the U.S.\$25 million cash portion of the purchase price of two marine seismic vessels and certain seismic data from an affiliate of Aker.

**Contractual Obligations**

The following table sets forth our future cash obligations as of December 31, 2004.

	Payments Due by Period				Total
	Less than 1 year	1-3 years	4-5 years	More than 5 years	
	(in millions)				
Long-Term Debt	60.4	114.7	0.9	63.5	239.5
Capital Lease Obligations	9.8	16.6	0.3		26.7 <sup>(a)</sup>
Operating Leases	43.8	42.4	2.6	0.6	89.4
Other Long-Term Obligations (bond interest)	20.4	33.1	9.7	14.7	77.9
<b>Total Contractual Cash Obligations</b>	<b>134.4</b>	<b>206.8</b>	<b>13.5</b>	<b>78.8</b>	<b>433.5</b>

(a) Includes 1.9 million of interest.

**Off-Balance Sheet Arrangements**

We have not entered into any off-balance sheet arrangements that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

**Research and development**

Our ability to compete effectively and maintain a significant market position in our industry depends to a substantial extent upon our continued technological innovation. We have focused on rationalizing our research and development activities both to reduce costs and to focus our research and development efforts primarily on reservoir characterization, multi-component seabed seismic processing techniques, structural imaging and advanced seismic recording equipment. Our research and development teams, totaling approximately 200 employees, are divided among operating divisions. The integration of new entities by Sercel has strengthened our research capabilities, especially in underwater acoustic transmission, oceanographic metrology and borehole electronics for area studies. We also access new sources of information or technology by entering into strategic alliances with equipment manufacturers, oil and gas companies, universities, or other clients or by acquiring technology under license from others. We have historically entered into and continue to pursue common research programs with the *Institut Français du Pétrole*, an agency of the French government.

While the market for our products and services is subject to continual and rapid technological changes, development cycles from initial conception through introduction can extend over several years. Our efforts have

resulted in the development of numerous inventions, new processes and techniques, many of which have been incorporated as improvements to our product lines. During 2002, 2003 and 2004, our research and development expenditures were 30.0 million, 29.3 million, and 35.5 million, respectively, of which approximately 10%, 8% and 5.6%, respectively, was funded by French governmental research entities, such as the *Fonds de Soutien*

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*aux Hydrocarbures* (which funding is to be repaid to such organizations from sales of products or services developed with such funds).

We have budgeted 40.5 million for research and development expenditures in 2005, including both expensed and capitalized costs, of which we expect to receive approximately 2.4 million from the *Agence Nationale de Valorisation de la Recherche*.

**Trend Information*****Currency Fluctuations***

As a company that derives a substantial amount of its revenue from sales internationally, we are subject to risks relating to fluctuations in currency exchange rates. In each of the years ended December 31, 2004, 2003 and 2002, over 90% of our operating revenues and approximately two-thirds of our operating expenses were denominated in currencies other than the euro. These included the U.S. dollar and, to a significantly lesser extent, other non-euro Western European currencies, principally the British pound and the Norwegian kroner. In addition, a significant portion of our revenues that were invoiced in euros related to contracts that were effectively priced in U.S. dollars, as the U.S. dollar often serves as the reference currency when bidding for contracts to provide geophysical services. Our exposure to fluctuations in the euro/ U.S. dollar exchange rate has increased considerably over the last few years due to increased sales outside of Europe.

Fluctuations in the exchange rate of the euro against such other currencies, particularly the U.S. dollar, have had in the past and can be expected in future periods to have a significant effect upon our results of operations. Since we participate in competitive bids for data acquisition contracts that are denominated in U.S. dollars, an appreciation of the U.S. dollar against the euro improves our competitive position against that of other companies whose costs and expenses are denominated in U.S. dollars. For financial reporting purposes, such appreciation positively affects our reported results of operations since U.S. dollar-denominated earnings that are converted to euros are stated at an increased value. A depreciation of the U.S. dollar against the euro, such as has occurred since the second half of 2003, has the opposite effect.

We attempt to match foreign currency revenues and expenses in order to balance our net position of receivables and payables denominated in foreign currencies. For example, charter costs for our seismic vessels, as well as our most important computer hardware leases, are denominated in U.S. dollars. Nevertheless, during the past five years such dollar-denominated expenses have not equaled dollar-denominated revenues, principally due to personnel costs payable in euros.

In order to improve the balance of our net position of receivables and payables denominated in foreign currencies, we maintain a portion of our financing in U.S. dollars. At December 31, 2004, 2003 and 2002, our total outstanding long-term debt denominated in U.S. dollars was U.S.\$331.8 million ( 243.6 million at the December 31, 2004 exchange rate), U.S.\$244.9 million ( 193.9 million at the December 31, 2003 exchange rate) and U.S.\$272.6 million ( 259.9 million at the December 31, 2002 exchange rate), respectively, representing 92%, 84% and 85%, respectively, of our total long-term debt outstanding at such dates.

In addition, to be protected against the reduction in value of future foreign currency cash flows, we follow a policy of selling U.S. dollars forward at average contract maturity dates that we attempt to match with future net U.S. dollar cash flows (revenues less costs in U.S. dollars) expected from firm contract commitments, generally over the ensuing six months. As of December 31, 2004, 2003 and 2002, we had U.S.\$127 million (with a euro equivalent-value of 102 million), U.S.\$145 million (euro equivalent-value of 114 million) and U.S.\$133 million (euro equivalent-value of 137 million), respectively, of notional amounts outstanding under euro/U.S. dollar forward exchange contracts and other foreign exchange currency hedging instruments.

We do not enter into forward foreign currency exchange contracts for trading purposes.

***Inflation***

Inflation has not had a material effect on our results of operations during the periods presented. We operate in, and receive payments in the currencies of, certain countries with historically high levels of inflation, such as

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Mexico, Brazil, Indonesia and Venezuela. We attempt to limit such risk by, for example, indexing payments in the local currency against, principally, the U.S. dollar exchange rate at a certain date to account for inflation during the contract term.

***Income Taxes***

We conduct the majority of our field activities outside of France and pay taxes on income earned or deemed profits in each foreign country pursuant to local tax rules and regulations. We do not receive any credit in respect of French taxes for income taxes paid by foreign branches and subsidiaries. Net tax expenses in recent periods were attributable to activities, principally in land acquisition, carried on outside of France. We have significant tax loss carryforwards that are available to offset future taxation on income earned in certain OECD countries. We recognize tax assets if a minimum history of profit for the past three years exists and budget estimates also indicate a profit for the following year.

***Seasonality***

Our land and marine seismic acquisition activities are seasonal in nature. We generally experience decreased revenues in the first quarter of each year due to the effects of weather conditions in the Northern Hemisphere and to the fact that our principal clients are generally not prepared to fully commit their annual exploration budget to specific projects during such period. We have historically experienced higher levels of activity in our equipment manufacturing operations in the fourth quarter as our clients seek to fully deploy annual budgeted capital.

***U.S. Accounting Standards***

On December 16, 2004, the Financial Accounting Standards Board ( FASB ) issued FASB Statement No. 123 (revised in 2004), *Share-Based Payment* , which is a revision of FASB Statement No. 123, *Accounting for Stock-Based Compensation* . Statement 123(R) supersedes APB Opinion No. 25, *Accounting for Stock Issued to Employees* and amends FASB Statement No. 95, *Statement of Cash Flows* . Generally, the approach in FASB Statement 123(R) is similar to the approach described in FASB Statement 123. However, FASB Statement 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure is no longer an alternative.

FASB Statement 123(R) must be adopted no later than July 1, 2005.

FASB Statement 123(R) permits public companies to adopt its requirements using one of two methods:

modified prospective method, in which compensation cost is recognized beginning with the effective date (i) based on the requirements of FASB Statement 123(R) for all share-based payments granted after the effective date and (ii) based on the requirements of FASB Statement 123 for all awards granted to employees prior to the effective date of FASB Statement 123(R) that remain unvested on the effective date; or

modified retrospective method, which includes the requirements of the modified prospective method described above, but also permits entities to restate based on the amounts previously recognized under FASB Statement 123 for purposes of pro forma disclosures either (i) all prior periods presented or (ii) prior interim periods of the year of adoption.

The company plans to adopt FASB Statement 123 using the modified-prospective method.

***Transition to IFRS Accounting***

European rule n°1606/2002, endorsed by the European Union in 2002, requires every company listed in a country of the European Union to adopt IFRS as its primary accounting principles from January 1, 2005. Our first consolidated financial statements under IFRS will be those at and for the three months ended March 31, 2005. We will present restated 2004 financial statements for the comparable period under IFRS.

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Consolidated financial statements under IFRS for the year 2004 will be presented in compliance with IFRS effective at January 1, 2005, as released at December 31, 2004. We chose to apply standards IAS 39 and IFRS 2 starting January 1, 2004 to ensure that our 2004 financial statements are comparable to our 2005 financial statements.

In order to prepare and enhance the comprehension of information to be provided under IFRS, a qualitative analysis of our IFRS implementation follows, indicating those standards that differ from our French GAAP through December 31, 2004, and the decisions we have made in adopting IFRS when there is a significant impact on our consolidated financial statements. IFRS 1, which we refer to below, addresses options related to the transition by companies to IFRS. All retrospective effects prior to January 1, 2004 are reflected in shareholders' equity as of January 1, 2004.

*Goodwill*

Under French GAAP, we currently amortize goodwill over the estimated future benefit periods.

Implementing IFRS will lead us to no longer amortize goodwill beginning January 1, 2004.

Each year, we perform impairment tests of the goodwill net book value. Under IFRS (IAS 36), impairment tests should be performed for each cash-generating unit (CGU) to which assets are allocated. The impairment tests we currently performed on our segments are compliant with this standard.

Furthermore, IFRS 1 provides the option to restate business combinations before January 1, 2004. We have not adopted this option.

*Development costs of new products*

Under French GAAP, all development costs are accounted for as operating expenses. This is shown in our accounts in the item "Research and development expenses". Implementing IFRS will lead us to capitalize development cost of projects that comply with the following requirements:

it is technically feasible to complete development of the intangible asset in order to use it or sell it;

we intend to complete development of the intangible asset in order to use it or sell it;

we have the ability to use or sell the intangible asset;

the intangible asset is likely to generate future economic benefits, either because it is useful to us or through an existing market for the intangible asset itself or for its products;

we have the technical, financial and other resources to complete development and sale or use of the intangible asset; and

we are able to properly assess expenses attributable to the intangible asset being developed.

We will capitalize development costs of seismic equipment development projects in the Products segment and of processing business development projects in the Services segment. Development costs will be amortized over the expected useful life of projects, which we estimate to be five years.

*Depreciation of intangible and tangible assets*

Under French GAAP, the acquisition cost of tangible assets is depreciated on a straight-line basis over their useful life. Implementing IFRS (IAS 16) will lead us to calculate the straight-line depreciation based on acquisition cost, minus a residual value, if applicable.

Our current practice as regards depreciation of intangible assets (IAS 38) is compliant with IFRS and will remain unchanged.

IFRS 1 provides the option to use the fair value method to assess the value of assets on the IFRS balance sheet at December 1, 2004, but we chose not to use this option.

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*Currency translation adjustments*

IFRS 1 provides the option to offset currency translation adjustments at January 1, 2004 against retained earnings. We will use this option.

*Financial debt*

Under French GAAP, we present the issuance costs and premium of debts as an asset on the balance sheet and amortize them on a straight-line basis over the life of the debt as operating expenses. Implementing IFRS (IAS 38) will lead us to classify such issuance costs and premium as a decrease in financial debt and to amortize them according to the effective interest rate method over the lifetime of the debt as financial expenses.

Under French GAAP, our subordinated bonds convertible into new ordinary shares or redeemable into new shares and/or existing shares and/or in cash are presented entirely as financial debt at nominal value. Implementing IFRS (IAS 39) will lead us to separate the fair value of the equity component of this debt and to record such equity component in shareholders' equity. The nominal amount of the debt will be reallocated over the life of the debt as a financial expense.

*Hedging derivatives instruments*

Under French GAAP, certain derivative instruments that are qualified as hedges of future transactions and unrealized gains are not recognized in the current period. Hedging gains are recorded in the same period as the loss on the hedged transactions. Gains and losses of derivatives instruments qualified as hedging assets or liabilities are accounted for in the income statement in the same period as the recognition of the hedged asset or liability.

Implementing IFRS (IAS 39) will lead us to record the effective portion of changes in fair value of derivatives qualifying as hedges of future cash flows temporarily in a specific equity account and then to recognize it in earnings along with the related effects of the hedged items. Any ineffective portion of hedges will be reported in earnings as it occurs.

*Treasury shares*

Under French GAAP, shares of our company that we own for the purpose of employee allocation or share price regulation are treated as marketable securities and are accounted for under the item "Cash and Cash equivalents". Gains or losses on these shares are accounted for in the income statement. Implementing IFRS (IAS 32) will lead us to account for our treasury shares as a reduction of equity and to recognize the gains and losses on treasury shares as equity variance.

*Deferred tax presentation*

Under French GAAP, deferred tax assets and deferred tax liabilities for the same entity are set off on the balance sheet. Implementing IFRS (IAS 12) will lead us to separately recognize deferred tax assets and deferred tax liabilities when they are not realized on the same maturity dates.

*Employee benefits*

IFRS 1 provides the option to present actuarial gains and losses not recorded at January 1, 2004 as a reduction of shareholders' equity at January 1, 2004, and we intend to use this option.

*Stock options*

Under French GAAP, no cost is recognized when stock options are granted.

Implementing IFRS (IFRS 2) will lead us to recognize stock options at their fair value on the grant date as an operating expense over the vesting period. This accounting applies to stock options granted since November 7, 2002 and stock options vested since January 1, 2004.

**Table of Contents****Item 6: DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES****Directors and Senior Management*****Board of Directors***

Under French law, the Board of Directors determines our business strategy and monitors business implementation. Subject to the specific powers granted by the ordinary general shareholders' meeting, the Board of Directors deals with any issues relating to our affairs. In particular, the Board of Directors prepares and presents our year-end accounts to our ordinary general shareholders meeting. Our Board of Directors consists of between six and fifteen members elected by our shareholders. Each director must own at least one director-qualifying share. Under French law, a director may be an individual or a legal entity for which an individual is appointed as permanent representative.

Our *statuts* (memorandum and articles of association) provide that each director is elected for a six-year term by the ordinary general shareholders' meeting. There is no obligation for directors to be French nationals. According to French corporate law, the number of terms that a director may serve is limited to five.

Directors are required to comply with applicable law and our *statuts*. Under French law, directors are responsible for actions taken by them that are contrary to the company's interests and may be held liable for such actions both individually and jointly with the other directors.

The following table sets forth the names of our current directors, their positions, the dates of their initial appointment as directors and the expiration dates of their current term.

<b>Name</b>	<b>Position</b>	<b>Initially Appointed</b>	<b>Term Expires</b>
Robert Brunck <sup>(1)</sup>	Chairman of the Board and Chief Executive Officer	1998	2008
Olivier Appert <sup>(2)</sup>	Director	2003	2008
Rémi Dorval	Director	2005	2010
Jean Dunand <sup>(3)</sup>	Director	1999	2007
Gérard Friès <sup>(1)</sup>	Director	2002	2008
Yves Lesage <sup>(3)</sup>	Director	1988	2009
John MacWilliams <sup>(1)</sup>	Director	1999	2005
Christian Marbach <sup>(1)</sup>	Director	1995	2007
Robert Semmens <sup>(2)(3)</sup>	Director	1999	2005
Daniel Valot <sup>(2)</sup>	Director	2001	2006

(1) Member of Strategic Planning Committee.

(2) Member of Appointment-Remuneration Committee.

(3) Member of Audit Committee.

Mr. Brunck, 55, has been our Chairman and Chief Executive Officer since May 1999. Mr. Brunck was Vice Chairman and President from September 1998 to May 1999 and was our President and Chief Operating Officer from February 1995 to September 1998. Mr. Brunck was Vice President of Administration and Development from 1991 to 1995 and Chief Financial Officer from 1989 to 1991. He is Chairman of the Supervisory Board of Sercel Holding SA, Chairman of the Board of Directors of CGG Americas Inc., Director of the *Ecole Nationale de Géologie*, Director of the Consortium Français de Localisation S.A., Director of the *Bureau de Recherches Géologiques et Minières* (BRGM) and Chairman of Armines.

Mr. Appert, 55, has been Chairman and Chief Executive Officer of IFP since April 2003. Mr. Appert was President for the long-term cooperation and energy policies analysis within the International Energy Agency since



October 1999. He is also a Director of Technip and of the Institut Physique du Globe de Paris.

Mr. Dorval, 54, has been Vice-Chairman and President of Soletanche-Bachy Entreprise since June 1997. Mr. Dorval is Director, Vice Chairman and Deputy Chief Executive Officer of Solétanche Bachy France,

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Chairman of Forsol, a Director of Solétanche S.A., Solmarine, SHPIC, Sol-Expert International, Sepicos Perfosol, Solétanche Bachy GmbH, Bachy Soletanche Holdings, co-manager of Inertec and permanent representative of Solétanche in the *Groupement d'Intérêt Economique* SB Mat.

Mr. Dunand, 65, was Financial and Legal Director of ISIS from 1999 to December 2001 and was Deputy General Manager (Russia and CIS) of Total Exploration-Production from 1994 to 1999.

Mr. Friès, 49, has been Senior Executive Vice President of the French Petroleum Institute (*Institut Français du Pétrole*, or IFP) since September 2001. Mr. Friès was Vice President of the Geoscience Research Center of Totalfina Exploration UK plc from 1999 to September 2001 and was a Director of Elf Gabon from 1997 to 1999. Mr. Friès is the representative of IFP Investissements on the Board of Directors of Geoservices S.A., a Director of ISIS Développement and of Malmaison Resources Inc. and a member of the Supervisory Board of Beicip-Franlab.

Mr. Lesage, 67, has been CGG Honorary Chairman since May 1999. Mr. Lesage was Chairman and Chief Executive Officer of CGG from January 1995 to May 1999. He was Chairman, President and Chief Executive Officer of Sograp from 1994 to 1995. Mr. Lesage is a Director of Earth Decision Sciences. He is President of the *Comité d'Etudes Pétrolières & Marines* and of the *Comité Industriel Statutaire de l'Amont IFP*.

Mr. MacWilliams, 49, is a Partner of The Tremont Group LLC. He has been a Partner of The Beacon Group LLC since 1993. Mr. MacWilliams is a director of Alliance Resource Partner L.P. and Soft Switching Technologies Inc.

Mr. Marbach, 67, *Ingénieur des Mines*, was Advisor to the General Management of Suez-Lyonnaise des Eaux from 1996 to 2000. Before that time, Mr. Marbach was Chairman and Chief Executive Officer of Coflexip and Coflexip Stena Offshore from 1991 to 1996. Mr. Marbach is a member of the Supervisory Board of Lagardère, a Director of Erap, Supervisor of Sofinnova and President of the Small and Medium Size Business Agency, a private sector group.

Mr. Semmens, 47, is an independent consultant and was Managing Director of The Beacon Group LLC from 1993 to 2000. Mr. Semmens is a Director of Mach Gen Holdings LLC and a member of the Supervisory Board of Sercel Holding SA.

Mr. Valot, 60, has been Chairman and Chief Executive Officer of Technip (which changed its name from Technip-Coflexip in July 2003) since December 2001. Mr. Valot was Chairman and Chief Executive Officer of Technip from 1999 to December 2001. Mr. Valot was President of Total Exploration and Production, and was a member of the Total Group Executive Committee from 1995 to 1999. Mr. Valot is Vice Chairman of Technip Americas, Chairman of Technip Far East and Technip Italy, a Director of IFP, SCOR and SCOR VIE and is a permanent representative of Technip on the Board of Directors of Technip France.

**Executive Officers**

Under French law and our current *statuts*, the Chairman and Chief Executive Officer has full executive authority to manage our affairs. The Board of Directors has the power to appoint and remove, at any time, the Chairman and Chief Executive Officer. Pursuant to French law and our current *statuts*, the Chairman and Chief Executive Officer, where those functions are exercised by the same person, has full power to act on our behalf and to represent us in dealings with third parties, subject only to those powers expressly reserved by law to the Board of Directors or our shareholders. The Chairman and Chief Executive Officer determines and is responsible for the implementation of the goals, strategies and budgets for our different businesses, which are reviewed and monitored by the Board of Directors. In accordance with French corporate law, our current *statuts* provide for the election by the Board of Directors of one person to assume the position of Chairman and Chief Executive Officer or the division of such functions between two different persons. In its session of May 15, 2002, the Board of Directors decided that Mr. Brunck would assume the position of Chairman and Chief Executive Officer until the expiry of his term as a director, unless otherwise decided by the Board. Our current *statuts* provide that the Board of Directors may appoint up to five President and Chief Operating Officers (*Directeurs Généraux Délégués*) upon proposal of the Chief Executive Officer, whether or not this person is also the Chairman of the Board.

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The following table sets forth the names of our current executive officers who serve as members of our Executive Committee, their current positions with us and the first dates as of which they served as our executive officers. We employ our executive officers under standard employment services agreements that have no fixed term.

**Executive Committee (*Comité Exécutif*)**

<b>Name</b>	<b>Current Position</b>	<b>Executive Officer Since</b>
Robert Brunck	Chairman and Chief Executive Officer	1989
Gérard Chambovet	Senior Executive Vice President, Strategy, Planning and Control	1995
Thierry Le Roux	Senior Executive Vice President, Products	1995
Christophe Pettenati-Auzière	Senior Executive Vice President, Services	1997
Michel Ponthus	Senior Executive Vice President, Finance and Human Resources and Chief Financial Officer	1995

Mr. Chambovet, 52, was appointed Senior Executive Vice President, Strategy, Planning and Control in January 2004. Until that time, he had been Senior Executive Vice President of our Services segment since October 1998. Mr. Chambovet was Executive Vice President of our Acquisition Product line from March 1995 to October 1998 and was Manager of our data processing center in Massy, France from 1987 to 1995.

Mr. Le Roux, 51, has been Senior Executive Vice President of our Products segment since October 1998. Mr. Le Roux was Executive Vice President of CGG's Geophysical Equipment operations from March 1995 to October 1998. Mr. Le Roux was Business Development Manager from 1992 to 1995 and Far East Manager from 1984 to 1992.

Mr. Pettenati-Auzière, 52, was appointed Senior Executive Vice President, Services in January 2004. Until that time, he had been Senior Executive Vice President, Strategy, Planning and Control since January 2001. Mr. Pettenati-Auzière was Senior Executive Vice President of our Offshore SBU from July 1999 to January 2001, Vice President of Business Development and Investor Relations from December 1998 to July 1999 and Vice President of Seismic Acquisition from April 1997 to December 1998. He was Executive Vice President of International Operations for Coflexip from 1990 to 1996.

Mr. Ponthus, 58, has been Senior Executive Vice President, Finance and Human Resources, and Chief Financial Officer since October 1998. Mr. Ponthus was our Chief Financial Officer from March 1995 to October 1998 and prior to joining CGG, Mr. Ponthus was Administrative and Financial Vice President of Petitjean Industries from 1990 to 1995.

The following table sets forth the names of the executive officers who, together with the Executive Committee, constitute the Group Management Committee, their current positions, and the dates as of which they were first appointed.

**Group Management Committee (*Comité de Direction du Groupe*)**

<b>Name</b>	<b>Current Position</b>	<b>Executive Officer Since</b>
Luc Benoit-Cattin	Executive Vice President, Offshore SBU	2003
Guillaume Cambois	Executive Vice President, Data Processing and Reservoir SBU	2001
Stéphane-Paul Frydman	Deputy Chief Financial Officer, CGG Group	2003
Dominique Robert	Executive Vice President, Land SBU	2000



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Mr. Benoit-Cattin, 41, was appointed Executive Vice President of our Offshore SBU in January 2005. Before that time, he had been Vice President, Services since June 2002. Prior to joining CGG, Mr. Benoit-Cattin was Executive Vice President for foil and heat transfer businesses in the Pechiney Group from January 1998 to May 2002 and Advisor to the minister of industry, in charge of energy and nuclear topics from June 1995 to May 1997.

Mr. Cambois, 40, has been Executive Vice President, Processing and Reservoir SBU, since July 2001. Mr. Cambois was Vice President, Processing SBU Technology from 1999 to 2001, Manager of the Calgary processing center from 1998 to 1999 and Manager of Research and Development of the Houston processing center from 1995 to 1998.

Mr. Frydman, 41, was appointed Deputy Chief Financial Officer of the CGG Group in January 2004. Before that time, he had been Vice President in charge of corporate financial affairs reporting to the Chief Financial Officer since December 2002. Prior to joining CGG, Mr. Frydman was an Investor Officer of Butler Capital Partners, a private equity firm, from April 2000 to November 2002, and Industrial Advisor to the French Minister of the Economy and Finances from June 1997 to March 2000.

Mr. Robert, 53, has been Executive Vice President of our Land SBU since December 2000. Mr. Robert was chief Operating Officer of Flagship from January 2000 to December 2000 and Vice President of the Asia Pacific Region from September 1995 to January 2000.

Mr. Rouiller, 51, has been Chief Operating Officer of the Sercel Group since December 1999. Mr. Rouiller was Vice President of our Product segment from October 1995 to December 1999 and Vice President for the Asia Pacific Region from May 1992 to September 1995.

**Compensation**

The aggregate compensation of our executive officers, including the Chairman and Chief Executive Officer, includes both a fixed element and a bonus element. The amount of the bonus depends upon the achievement of commercial and financial targets for items such as consolidated net income, operating income and free cash flow of our various activities and upon satisfaction of certain individual qualitative objectives. With this bonus, the aggregate compensation may substantially vary from one year to another. The bonus due to the general management for a given fiscal year is paid during the first semester of the next fiscal year.

The aggregate compensation as a group of the executive officers (excluding the Chairman and Chief Executive Officer) who were members of the Group Management Committee paid in fiscal year 2004 was 2,395,438, including the 2003 bonus.

The aggregate compensation paid to Mr. Brunck, Chairman and Chief Executive Officer, in fiscal year 2004 was 371,613 of fixed compensation and 172,000, representing his 2003 bonus. In addition, Mr. Brunck received 37,873.79 in his capacity as a Director. Mr. Brunck will be paid his 2004 bonus of 238,550 in the first half of 2005. Mr. Brunck is also a beneficiary of the supplemental pension and retirement plan described below.

Directors as a group received aggregate compensation of 263,000 in January 2005 for services provided in their capacity as such during fiscal year 2004. No amounts were set aside or accrued by us or our subsidiaries to provide pension, retirement or similar benefits to the executive officers or directors. Directors' service contracts do not provide for benefits upon termination.

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The following table sets forth the amounts CGG and our subsidiaries paid to directors of CGG, in their capacity as directors, in the year ended December 31, 2004:

Name	Amount paid to CGG directors during 2004
	( )
Robert Brunck <sup>(1)</sup>	37,873.79
Olivier Appert	17,894.06
Robert Castaigne <sup>(2)</sup>	8,911.40
Patrick de la Chevardière	15,655.36
Jean Dunand	28,258.41
Gérard Friès	27,190.03
Yves Lesage	26,121.66
John J. MacWilliams	21,848.15
Christian Marbach	27,190.03
Robert F. Semmens <sup>(3)</sup>	36,984.90
Andrew Sheiner	1,477.18
Daniel Valot	13,595.02

(1) R. Brunck does not receive any compensation as Chairman of the Supervisory Board of Sercel Holding or as Chairman of the Board of Directors of CGG Americas.

(2) Term of office expired on May 13, 2004.

(3) Includes 23,984.90 paid by CGG to Mr. Semmens as a director and 13,000 paid by Sercel Holding to Mr. Semmens as a member of the Supervisory Board.

A supplemental pension and retirement plan for the members of the Group Management Committee and the Management Board of Sercel was implemented in December 2004. Our aggregate commitment related to the projected benefit obligation for the new plan was 2.5 million as of December 31, 2004. Because this obligation was unvested as of December 31, 2004, we recorded no provision for it on our balance sheet.

As of March 31, 2005, our directors and executive officers held an aggregate of 18,561 ordinary shares of CGG. As of March 31, 2005 our directors and executive officers held options to purchase an aggregate of 354,667 ordinary shares. As of March 31, 2005, none of our directors and executive officers held, on an individual basis, shares and options representing 1% or more of our outstanding capital.

**Board Practices**

Pursuant to the standards set forth in the report of the working committee chaired by Mr. Daniel Bouton, President of the Société Générale, to promote better corporate governance standards in listed companies (the Bouton Report), we believe that five of our directors do not have any relationship with CGG, the group or its management that could impair their freedom of judgment and thus qualify as independent. Those directors are Mr. Dunand, Mr. Marbach, Mr. Semmens, Mr. Dorval and Mr. Valot. We also believe that the position of Mr. Semmens as a member of the Supervisory Board of our subsidiary Sercel Holding SA does not impair his independence. Our board of directors reviews, on an annual basis, the qualification of directors as independent pursuant to the Bouton Report criteria.

The corporate governance rules that have recently been adopted by the New York Stock Exchange differ from the regulations and recommendations applicable in France, especially those governing the definition of director independence and the role and operation of the board's committees. As a non-U.S. listed company, we are exempted from many of these corporate governance rules, which are applicable to U.S. listed companies. For example, our board

has not formally determined which of its directors meet NYSE independence standards, and non-management directors do not meet regularly. Our Appointment-Remuneration Committee is not made up exclusively of independent directors, and the Board's internal charter does not address committee purposes and responsibilities in the manner specified by the NYSE rules applicable to nominating, compensation and audit committees. However, our Audit Committee members meet the independence test for audit committee members

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established by the SEC, and we believe that they also meet the definition of independence under the NYSE rules.

*Strategic Planning Committee*

The Strategic Planning Committee, chaired by Mr. Brunck, is charged with studying our strategic plans and our planned financial transactions. The Strategic Planning Committee customarily meets before each Board meeting and more often if necessary. During 2004, the Strategic Planning Committee met ten times. The average meeting attendance rate of committee members was close to 90%. In 2004, the committee was consulted by management at each stage of the implementation of the proposed merger between PGS and CGG and was kept regularly informed of relevant developments. Finally, the Committee reviewed the three-year plan and its corresponding financing plan.

*Audit Committee*

The Audit Committee is chaired by Mr. Dunand. The other members are Mr. Lesage and Mr. Semmens. The Audit Committee is responsible for assisting the Board of Directors and, as such for undertaking preparatory work for the Board, particularly by reviewing our financial statements with management and our statutory auditors.

Toward this goal, the principal responsibilities of the Audit Committee are as follows:

Consider the consistency and appropriateness of the accounting methods we adopt to prepare our corporate and consolidated financial statements.

Specifically, the Committee is charged with:

Reviewing and discussing with management and our statutory auditors the consolidation perimeters and requesting, when necessary, all appropriate explanations;

Reviewing and discussing with management and our statutory auditors or draft annual and semi-annual financial statements together with the notes to them, and especially off-balance sheet arrangements;

Reviewing and discussing with management and our statutory auditors the principles and accounting methods used and applied for the preparation of our financial statements to ensure that they are appropriate, as well as any modification made to such methods and principles;

Reviewing and discussing with management and our statutory auditors the quality, comprehensiveness, accuracy and sincerity of the financial statements;

Receiving reports from our statutory auditors on their review, including any comments and suggestions they may have made in the scope of their audit; and

Raising any financial or accounting question that the Committee deems important.

In consultation with our statutory auditors, our internal auditors and management, review the structure of our internal control procedures and the way in which they operate, notably those procedures relating to the preparation and treatment of accounting and financial information used to prepare our financial statements, to assess and manage risks, to comply with the principal regulations applicable to us. The Committee reviews the comments and observations made by the statutory auditors on our internal control procedures.

With respect to internal audit, review and discuss with management particularly:

Its organization and operation; and

Its activities and in particular the responsibilities proposed in the scope of the internal audit plan approved by the general management and presented to the Committee.



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Reviewing and discussing with management and, when appropriate, our statutory auditors the transactions directly or indirectly binding the Group and its executive officers.

With respect to external audit:

Review and discuss with the statutory auditors their annual audit plan;

Meet with the statutory auditors outside the presence of management;

Ensure the independence of the statutory auditors by managing the procedure for selection of the auditors. The Committee submits its choice to the Board of Directors, which, pursuant to French law, must submit appointment of auditors to the vote at a shareholders meeting; and

Discuss the extent and results of the audit work separately with the statutory auditors and management and review the amount of auditors fees regularly with management. Within the framework of a procedure that it determines annually, the Committee has sole authority to authorize performance by the auditors and/or by the members of their network of services not directly relating to their auditing mission.

Oversee the anonymous handling of any report concerning a possible internal control problem or any problem of an accounting or financial nature.

Sessions of the Audit Committee are open to the members of the Executive Committee, our external auditors (in order to report on their audit reviews) and the Senior Vice-President, Internal Audit (in order to review important assignments).

The Audit Committee customarily meets before each Board meeting. In addition, the members of the Audit Committee are systematically invited for information purposes to attend Strategic Committee meetings.

During 2004, the Committee met five times. The average meeting attendance rate of committee members was 100%. In the course of its meetings, the Audit Committee reviewed draft versions of the 2003 annual financial statements, semi-annual financial statements and forecasts for 2004 before these were presented to the Board. The Audit Committee also provided to the Board its recommendations concerning the financial statements. In addition, the statutory auditors reported to the Audit Committee on their work and the scope of their audit. Finally, the Audit Committee reviewed the group 2005 budget.

The Audit Committee also examined the work to be performed by the statutory auditors in the scope of their audit on the 2004 financial statements and approved their fee estimates for this work. In compliance with the Audit Committee's procedures providing for its prior approval of non-audit services provided by the members of our auditors network, the Audit Committee reviewed the services so performed in 2004 and approved them as necessary.

The Audit Committee also reviewed the activities of our internal audit team, which acts on the basis of a plan established by the Executive Committee and presented to the Audit Committee. This plan is established in light of perceived operational and financial risks and with the goal of systematically reviewing each Strategic Business Unit every three years. It also regularly reviews multi-client surveys, analyzing in particular the sales average coverage rate in order to evaluate the fair value of surveys as recorded on the balance sheet. The Audit Committee was also kept regularly informed on the development of two of our major projects during 2004: (i) the transition to IFRS and (ii) the assessment of internal control procedures pursuant to section 404 of the Sarbanes Oxley Act.

As previously disclosed in our annual report on Form 20-F for the year ended December 31, 2003 and our report on Form 6-K dated May 13, 2004, our management informed the Audit Committee of a letter dated May 4, 2004 addressed by a former senior financial officer of our Services segment to one of our external auditors containing allegations relating to CGG and its subsidiaries and affiliated entities, principally with respect to certain of our overseas operations. The Audit Committee recommended that an independent investigation of the allegations be conducted by outside counsel in order to determine their truthfulness, their possible impact on our consolidated financial statements and possible violations by CGG and its subsidiaries and affiliated entities of the laws governing their activities.



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Following completion of the independent investigation, the Audit Committee informed our Board of Directors of the conclusions of the investigation, including the existence of irregularities in one of our contractually controlled overseas entities and related books and records and internal control weaknesses. The Audit Committee concluded that these matters were not material to our consolidated results of operations but recommended measures to be implemented by us to further improve our internal controls, each of which we have implemented. These include changing the frequency with which we rotate overseas personnel in certain countries, further enhancing the enforcement of our code of ethics and reinforcing the supervision of internal auditors in certain countries. We had already decided in 2003 to close the overseas entity concerned as part of our land restructuring program and terminated our cooperation agreements with such entity in February 2005. After having been informed of the independent investigation initiated by the Audit Committee, our statutory auditors have performed the work they have deemed necessary, which included considering the work performed and conclusions reached by external advisors hired by the Audit Committee. Based on the work performed, our statutory auditors concurred with the conclusions reached by the Audit Committee.

Subsequent to discussions beginning in January 2005 and the satisfactory conclusion in April 2005 of the French market authority's (*Autorité des marchés financiers*) review of these matters, we then initiated a similar process with the Securities and Exchange Commission with respect to these matters and informed the Department of Justice of our contact with the SEC. We understand that the SEC and DOJ are considering what type of follow-up will be appropriate. There can be no assurance as to what action, if any, the SEC or DOJ might take against us, our subsidiaries or affiliated entities or their respective officers, directors, employees or agents in respect of these matters. See Risk Factors We are subject to risks related to our international operations that could harm our business and results of operations.

Finally, the Audit Committee formalized its operation by adopting a charter, which was ratified by the Board of Directors on March 8, 2005.

*Appointment-Remuneration Committee*

The Appointment-Remuneration Committee, chaired by Mr. Semmens, proposes to the Board of Directors the remuneration of the Chairman and Chief Executive Officer as well as any stock option plans and employee shareholding plans. This committee also reviews proposals for appointments of directors and members of Board committees. The committee is also kept informed of the remuneration of the members of the Executive Committee. In 2004, this committee met twice to decide on (i) the remuneration of the Chairman and Chief Executive Officer and (ii) the implementation of a supplemental pension and retirement plan for the Chairman and Chief Executive Officer.

**Employees**

As of December 31, 2004, we had approximately 3,669 permanent employees worldwide, as well as several thousand auxiliary field personnel on temporary contracts. 2,025 of our employees are involved in our Services segment and 1,644 in our Products segment. We have never experienced a material work stoppage and consider our relations with our employees to be good. We believe that our highly educated and experienced staff constitutes one of our most valuable assets. We permanently employ more than 1,800 technicians and persons holding engineering degrees and have developed a significant in-house training program.

In accordance with French law for employees employed under French contracts, we, and each of our French subsidiaries have a Employee Representation Committee (*Comité d'Entreprise*) consisting of representatives elected by our employees. The Employee Representation Committee reports regularly to employees, represents employees in relations with management, is consulted on significant matters relating to employee working conditions and is regularly informed of economic developments.

Our total workforce has increased from 3,185 at December 31, 2003 to 3,669 at December 31, 2004. This increase the size of our workforce is mainly attributable to the acquisitions made by Sercel in the course of 2004. Our total workforce at December 31, 2002 was 3,440. We are preparing for the future by improving our training program, putting increased emphasis on strengthening the technical and personal skills of our employees.

**Table of Contents****Share Ownership**

In accordance with French law, we are authorized annually by our shareholders at the extraordinary general meeting to issue ordinary shares for sale to our employees and employees of our affiliates who elect to participate in our Group Employee Savings Plan (*Plan d'Epargne Entreprise Groupe*) instituted in 1997 (the Group Plan). Our shareholders, at the extraordinary general meeting held on October 29, 2004, renewed our authorization to issue up to 500,000 ordinary shares in sales to employees and affiliates who participate in the Group Plan. We may offer ordinary shares pursuant to the Group Plan at a price neither higher than the average market price for the 20 business days preceding the date on which the Board of Directors set the commencement date for the offering nor lower than 80% of such average market price. As of March 31, 2005, CGG group employees held 42,120 ordinary shares, corresponding to 0.36% of our share capital, through the Group Plan.

Pursuant to resolutions adopted by our Board of Directors on May 5, 1997, January 18, 2000, March 14, 2001, May 15, 2002 and May 15, 2003, our Board of Directors has granted options to certain of our employees, executive officers and directors to subscribe for an aggregate of 895,000 ordinary shares. This total has been adjusted pursuant to French law and the terms of the options to total 908,210 options. Options with respect to 740,345 ordinary shares remained outstanding as of March 31, 2005. The following table sets forth certain information relating to these stock options plans as of March 31, 2005:

<b>Date of Board of Directors Resolution</b>	<b>Options Granted</b>	<b>Options Exercised (Ordinary Shares) at March 31, 2005</b>	<b>Options Outstanding at March 31, 2005<sup>(1)</sup></b>	<b>Exercise price per Ordinary Share</b>	<b>Expiration Date</b>
May 5, 1997	100,000 <sup>(2)</sup>	26,810	41,632 <sup>(2)</sup>	61.03	May 4, 2005
January 18, 2000 <sup>(3)</sup>	231,000	45,950	164,300	49.90	January 17, 2008
March 14, 2001 <sup>(4)</sup>	256,000		240,150	71.20	March 13, 2009
May 15, 2002 <sup>(5)</sup>	138,100	1,750	129,350	43.47	May 14, 2010
May 15, 2003 <sup>(6)</sup>	169,900	1,500	164,913	15.82	May 14, 2011
<b>Total</b>	<b>895,000</b>	<b>76,010</b>	<b>740,345</b>		

(1) The stock option plans provide for the cancellation of the options if the holder is no longer our employee, director or executive officer.

(2) Pursuant to French law and the terms of the stock option plans, the numbers of options granted and the exercise price were adjusted following the rights offering by CGG in December 1999.

(3) Options under the 2000 plan could not be exercised before January 2003.

(4) Options under the 2001 plan vest by one-fifth each year from March 2001 and could not be exercised before March 14, 2004.

(5)

Options under the 2002 plan vest by one-fifth each year from May 2002 and cannot be exercised before May 16, 2005.

(6) Options under the 2003 plan vest by one-fourth each year from May 2003 and cannot be exercised before May 16, 2006.

At the extraordinary general shareholders meeting held on May 13, 2004, a new stock option plan was approved by shareholders whereby options to purchase up to 7% of our share capital outstanding on the date of allocation may be granted in one or several allocations by the Board of Directors to certain of our employees and executive officers during the 38-month period following the plan's approval. The Board has not implemented any allocations of stock options pursuant to such shareholders' resolution.

**Table of Contents****Item 7: MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS****Major Shareholders**

The table below sets forth certain information with respect to (i) entities known to us or ascertained from public filings to beneficially own a significant percentage of our voting securities and (ii) the total number of shares of our common stock (called ordinary shares) owned by our directors and officers as a group, as of March 31, 2005 and for the past three years.

**Identity of Person or Group**

	March 31, 2005			December 31, 2004		December 31, 2003		December 31, 2002	
	Number of shares	% of shares	% of voting rights	% of shares	% of voting rights	% of shares	% of voting rights	% of shares	% of voting rights
The Beacon Group				15.21	25.51	15.21	20.99	15.21	20.53
Institut Français du Pétrole	1,402,622	11.94	21.23	12.01	12.94	12.30	10.79	12.30	10.56
Total Chimie						4.02	7.05	4.02	6.90
EBPF-Financière de l Echiquier				4.58	3.84	5.05	4.43		
Public	10,339,958	88.06	78.77	68.20	57.71	63.42	56.74	68.47	62.01

Our *statuts* provide that, as from May 22, 1997, each ordinary share that is fully paid and has been held in registered form by the same shareholder for a period of at least two consecutive years will entitle such shareholder to two votes at meetings of shareholders. As of March 31, 2005, IFP had held 1,402,622 fully paid ordinary shares in registered form for two consecutive years, giving IFP 21.23% of the voting power of the outstanding ordinary shares as of such date. Our *statuts* provide that fully paid ordinary shares may be held in either registered form or bearer form at the option of the shareholder. Substantially all ordinary shares held by shareholders other than IFP are presently held in bearer form.

On July 26, 2001, Technip-Coflexip (later renamed Technip), a French company, launched an offer to acquire ISIS, a holder of 12.3% of our outstanding ordinary shares. As a result of the offer, Technip acquired 99.05% of the share capital of ISIS. In connection with this transaction, Technip, ISIS and IFP entered into a memorandum of understanding, dated July 21, 2001 (as amended), pursuant to which ISIS agreed to hold our ordinary shares for one year from October 2001. During the subsequent three-year period, ISIS would either have the right to cause IFP to purchase our ordinary shares currently owned by ISIS or be obligated to sell those ordinary shares to IFP, in either case in exchange for Technip ordinary shares, subject to market prices.

On June 2002, Technip and Isis merged as a result of which our ordinary shares owned by Isis were transferred to Technip-Coflexip. Pursuant to the above-referenced memorandum of understanding, our ordinary shares owned by Technip were transferred to IFP on December 9, 2002.

On March 18, 2005, CGG Investors LLC and GF Ltd. Transaction Partnership LP ( The Beacon Group ) sold all the 1,777,071 ordinary shares they owned, representing 15.21% of our total share capital, by means of a private placement in Europe.

See Item 9: The Offer and Listing Offer and Listing Details for information regarding holdings of our shares in the United States.

**Related Party Transactions**

We provide geophysical services and equipment to oil and gas exploration and production subsidiaries of the Total Group pursuant to contracts entered into on an arm s-length basis. Total Chimie, which was until 2004 one of our major shareholders, is a member of the Total Group. Aggregate operating sales to this group totaled 23.1 million in

2004, 30.2 million in 2003 and 40.0 million in 2002.

LDA provides ship management services for a portion of our fleet, and the service agreements are concluded on normal commercial terms. Debt to LDA was 6.2 million, 1.3 million and 1.5 million as of December 31,

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2004, 2003 and 2002, respectively. Total net charges paid throughout the year for the provision of ship management services were 0.5 million for 2004, 7.2 million for 2003 and 9.4 million for 2002, respectively. Future commitments for such services to LDA were 6.8 million for 2004, 10.0 million for 2003 and 9.3 million for 2002, respectively.

LDA and we own a company, Geomar, that we account for using the equity method and that owns the *CGG Alizé* seismic vessel. LDA has a 51% stake in Geomar. Amounts we paid to Geomar were 9.0 million for 2004, 9.7 million for 2003 and 11.2 million for 2002, respectively. Future charterparty amounts due from us to Geomar were 18.6 million for 2004, 28.5 million for 2003 and 44.4 million for 2002, respectively. Debt to Geomar was 0.7 million, 1.5 million and 1.9 million as of December 31, 2004, 2003 and 2002, respectively.

The sales of geophysical products from Sercel to Argas, a 49% owned affiliate, were 1.3 million for 2004 (representing 0.2% of our total revenues), 1.7 million for 2003 (representing 0.3% of our total revenues) and 4.9 million for 2002 (representing 0.7% of our total revenues), respectively.

Sales of geophysical products from Sercel to Xian Peic, a 40% owned affiliate, were 4.8 million, representing 0.7% of our revenues for 2004.

**Interests of Experts and Counsel**

None.

**Item 8: FINANCIAL INFORMATION**

**Consolidated Statements and Other Financial Information**

Reference is made to Item 18 for a list of all financial Statements and notes thereto filed as a part of this annual report.

**Item 9: THE OFFER AND LISTING**

**Offer and Listing Details**

The trading market for our ordinary shares is the Premier Marché of Euronext Paris S.A., where the ordinary shares have been listed since 1981. American Depositary Shares, or ADSs, representing ordinary shares have been traded on the New York Stock Exchange since May 1997. Each ADS represents one-fifth of one ordinary share. The ADSs are evidenced by American Depositary Receipts, or ADRs, issued by The Bank of New York, as Depositary, and are traded under the symbol *GGY*. The Bank of New York has advised us that as of December 31, 2004, there were 787,000 ADSs outstanding, representing 157,400 ordinary shares, which are held of record by five registered holders. On the basis of this information, the ADSs held on such date in the United States represented approximately 1.34 % of our outstanding ordinary shares. Our by-laws provide that fully paid ordinary shares may be held in either registered or bearer form at the option of the shareholder.

***Price Information on Euronext Paris.***

The tables below set forth, for the periods indicated, the reported high and low prices for the outstanding ordinary shares on Euronext Paris.



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The table below indicates the high and low market prices for the most recent six months:

	Price per Share <sup>(1)</sup>	
	High	Low
	( )	
<b>2005</b>		
March	71.80	62.00
February	72.40	56.60
January	59.20	50.20
<b>2004</b>		
December	52.25	47.70
November	50.35	43.32
October	54.40	46.22

Note:

(1) Source: Euronext Paris.

The table below indicates the quarterly high and low market prices for the two most recent financial years:

	Price per Share <sup>(1)</sup>	
	High	Low
	( )	
<b>2005</b>		
First Quarter	72.40	50.20
<b>2004</b>		
First Quarter	39.80	29.70
Second Quarter	50.95	36.10
Third Quarter	56.50	38.11
Fourth Quarter	54.40	43.32
<b>2003</b>		
First Quarter	17.00	9.11
Second Quarter	21.75	13.01
Third Quarter	21.30	17.66
Fourth Quarter	32.30	19.07

Note:

(1) Source: Euronext Paris.

The table below indicates the high and low market prices for the five most recent financial years:

Price per Share<sup>(1)</sup>

	<b>High</b>	<b>Low</b>
		( )
2004	56.50	29.70
2003	32.30	9.11
2002	50.05	13.35
2001	83.00	30.00
2000	92.00	46.00

Note:

(1) Source: Euronext Paris.

**Table of Contents****Price Information on the NYSE**

The table below sets forth, for the periods indicated, the high and low sale prices for the ADSs representing our ordinary shares on the New York Stock Exchange:

The table below indicates the high and low market prices for the most recent six months:

	<b>High</b>	<b>Low</b>
	<b>(U.S.\$)</b>	
<b>2005</b>		
March	18.84	16.25
February	19.40	14.76
January	15.34	13.35
<b>2004</b>		
December	14.05	12.80
November	12.76	11.28
October	13.30	11.51

The table below indicates the quarterly high and low market prices for the two most recent financial years:

	<b>High</b>	<b>Low</b>
	<b>(U.S.\$)</b>	
<b>2005</b>		
First Quarter	19.40	13.35
<b>2004</b>		
First Quarter	10.20	7.47
Second Quarter	12.41	8.65
Third Quarter	13.82	9.30
Fourth Quarter	14.05	11.28
<b>2003</b>		
First Quarter	3.62	2.12
Second Quarter	4.90	2.75
Third Quarter	4.90	3.99
Fourth Quarter	7.62	4.40

The table below indicates the yearly high and low market prices on a yearly basis for the five most recent financial years:

	<b>High</b>	<b>Low</b>
	<b>(U.S.\$)</b>	
2004	14.05	7.47
2003	7.62	2.12
2002	9.00	2.50
2001	14 <sup>2</sup> / <sub>5</sub>	5 <sup>19</sup> / <sub>20</sub>
2000	15 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>8</sub>

***Trading on Euronext Paris***

Official trading of listed securities on Euronext Paris is transacted through stockbrokers and other financial intermediaries, and takes place continuously on each business day from 9:00 a.m. through 5:25 p.m., with a pre-opening session from 7:15 a.m. through 9:00 a.m. during which transactions are recorded but not executed. Any trade effected after the close of a stock exchange session is recorded, on the next Paris Bourse trading day, at the closing price for the relevant security at the end of the previous day's session. Euronext Paris publishes a daily Official Price List that includes price information concerning listed securities. Euronext Paris has introduced

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continuous trading during trading hours by computer for most listed securities. Shares listed on Euronext Paris are placed in one of three categories depending on the issuer's market capitalization. Our outstanding ordinary shares are listed on the Eurolist by Euronext Paris in the category known as Continu, which includes the most actively traded shares.

**Plan of Distribution**

Not applicable.

**Markets**

Our ordinary shares are listed on Euronext Paris. American Depositary Receipts representing our ordinary shares are listed on the New York Stock Exchange. Our 10<sup>5</sup>/8% Senior Notes due 2007 are listed on the Luxembourg Stock Exchange.

**Selling Shareholders**

Not applicable.

**Dilution**

Not applicable.

**Expenses of the Issue**

Not applicable.

**Item 10: ADDITIONAL INFORMATION**

**Share Capital**

Not applicable.

**Memorandum and By-laws**

Our company is a *société anonyme*, a form of limited liability company, established under the laws of France, and we are registered with the Trade Register of Evry, France under the number 969 202 241. Our financial year begins on January 1 and ends on December 31 of each calendar year. The following paragraphs set forth information concerning our share capital and provide related descriptions of certain provisions of our by-laws (*statuts*), and applicable French law. This information and description do not purport to be complete and are qualified in their entirety by reference to our by-laws.

***Object and Purposes***

Under Article 2 of our *statuts*, our object is:

to develop and operate, in any form and under any conditions whatsoever, any and all businesses relating to the geophysical surveying of soil and subsoil in any and all countries, on behalf of third parties or ourselves;

to participate directly or indirectly in any business, firm or company whose object would be likely to promote our object; and

generally, to engage in any commercial, industrial, mining, financial, personal or real property activities relating directly or indirectly to the above objects without limitation or reserve.

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***Directors***

For a further description of the Board of Directors powers under French law and our *statuts*, see Item 6: Directors, Senior Management and Employees.

***Transaction with Interested Directors***

French company law provides for prior approval and control of transactions entered into between, directly or indirectly, us and our directors, general manager, deputy general manager, or any entity in which any of these persons is at the same time an owner, partner with unlimited liability, managing director, member of the supervisory board or an executive officer, unless the transaction is entered into in the ordinary course of business and under normal terms and conditions. Transactions entered into between us and one of our shareholders who holds, directly or indirectly, more than 10% of our voting rights, or with an entity controlling such a shareholder, are also considered related party transactions requiring the prior approval of our board of directors.

The interested party has the obligation to inform our board of directors of the existence of the related party transaction, and a majority of our disinterested directors must approve the transaction.

If a related party transaction is pre-approved by the majority of our disinterested directors, our chairman must then report the authorized transaction to our statutory auditors within one month following the closing thereof. The auditors must then prepare a special report on the transaction to be submitted to our shareholders at their next general meeting, during which our shareholders would consider the transaction for ratification (any interested shareholder would be excluded from voting). If the transaction is not ratified by the shareholders, such absence of ratification would normally and except in the case of fraud have no impact on the validity of the transaction, but the shareholders may in turn hold the board of directors or interested representative of the company liable for any damages suffered as a result thereof.

Any related party transaction concluded without the prior consent of a majority of our disinterested directors can be voided by a court, if we incur a loss as a result. In addition, an interested related party may be held liable on this basis.

***Power to Decide Upon the Compensation of Directors, Chairman and Chief Executive Officer***

Under our *statuts*, the shareholders meeting may provide for the payment to the directors of an annual fixed sum for their attendance at board meetings (*jetons de présence*). The amount of such compensation remains unchanged until further decision by the shareholders meeting. The Board of Directors allocates this amount between its members in the manner it deems appropriate.

Under our *statuts*, the Board of Directors has authority to determine the compensation of its chairman as well as of its chief executive officer.

***Borrowing Powers Exercisable by the Directors***

Under French company law and our *statuts*, directors other than legal entities are forbidden to take out loans from CGG in any form whatsoever or to have CGG grant them an overdraft in current account or otherwise. It is also forbidden to have CGG stand as surety for them or back their commitments in respect of third parties. This prohibition also applies to chief operating officers and to permanent representatives of legal-entity directors. It also applies to the spouses, lineal forebearers or descendants of the persons referred to in this paragraph and also to any trustee.

Under article L.225-43 of the French Commercial Code, directors and executive officers may not borrow money or obtain a guarantee from us. Any such loan or guarantee would be void and may not be relied upon by third parties.

***Retirement of Directors Under an Age Limit Requirement***

Under our *statuts*, the Chairman of the Board's term of office ends, at the latest, after the annual Ordinary Shareholders Meeting following the date on which he reaches the age of 65. However, the Board of Directors

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may further extend the office of the Chairman, one or more times for a total period not to exceed three years. In accordance with article L.225-19 of the French Commercial Code, no more than one-third of the members of the Board of Directors may be more than 70 years old, unless the *statuts* of the company provide otherwise. Our *statuts* do not contain any provisions contrary to this limitation.

*Number of Shares Required for a Director's Qualification*

Under our *statuts*, throughout his term of office, each director must own at least one share.

**Share Capital**

As of March 31, 2005, our issued share capital amounts to 23,485,160, divided into 11,742,580 shares of the same class with a nominal value of 2 per share. The shares are fully paid. Pursuant to our *statuts*, fully paid shares may be held either in registered or in bearer form at the option of the shareholder. The *statuts* also allow us to avail ourselves of a procedure known as *titres au porteur identifiables* by which we may request Euroclear France to disclose the name, nationality, address and the number of shares held by the holders of any of our securities which have, or may in the future have, voting rights. See Form, Holding and Transfer of Shares.

**Dividend and Liquidation Rights**

We may only distribute dividends out of our distributable profits, plus any amounts held in our reserve which the shareholders decide to make available for distribution, other than those reserves which are specifically required by law. Distributable profits consist of our unconsolidated net profit in each fiscal year, as increased or reduced by any profit or loss carried forward from prior years, less any contributions to the reserve accounts pursuant to law.

Under French law, before dividends may be paid with respect to any fiscal year, we must contribute a minimum of 5% of our annual unconsolidated net income to a legal reserve fund, until it reaches an amount equal to 10% of our outstanding share capital. The legal reserve is distributable only upon our liquidation.

Our *statuts* provide that the general shareholders meeting, either on a recommendation from the board of directors or on its own initiative, may allocate all or part of our distributable profits, if any, to one or more special or general reserves or to keep such profits as retained earnings to be carried forward to the next fiscal year. Any remaining distributable profits are distributed to shareholders as dividends in proportion to their holdings. However, except in the case of a decrease in share capital which aims to offset losses, no distribution may be made to shareholders when the shareholders' equity is or would become, as a result of the distribution, less than the amount of the share capital increased by amounts held in reserve accounts pursuant to law. The methods of payment of dividends are determined by the annual general meeting of shareholders or by the board of directors in the absence of a decision by the shareholders. According to our *statuts*, the general meeting has the power to give each shareholder the option of receiving all or part of its dividend payment in either cash or shares.

If we have earned distributable profits since the end of the preceding fiscal year, as shown on an interim income statement certified by our auditors, the board of directors has the authority, without the approval of shareholders, to distribute interim dividends to the extent of such distributable profits for the period covered by the interim income statement.

Subject to the statement above regarding interim dividends, the payment of dividends is fixed at the ordinary general meeting of shareholders at which the annual accounts are approved, upon the recommendation of the board of directors. Under French law, dividends are normally distributed to shareholders in proportion to their respective holdings. Dividends are payable to all holders of shares, except for treasury stock, issued and outstanding on the date of the shareholders' meeting approving the distribution of dividends or, in the case of interim dividends, on the date of the board of directors' meeting approving the distribution of interim dividends. We must make annual dividend payments within nine months of the end of our fiscal year, unless otherwise authorized by a court order. Dividends not claimed within five years of the date of payment revert to the French State.

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Our board of directors may, at any time and for any reason, propose to an extraordinary general meeting of shareholders the early dissolution of the company and we may be placed in liquidation in compliance with the relevant provisions of the French company law. If the company is liquidated, those of its assets remaining after payment of our debts, liquidation expenses and all of our remaining obligations will be distributed first to repay in full the nominal value of the shares, and the surplus, if any, will be distributed among the shareholders in proportion to the nominal value of their shareholdings.

***Changes in Share Capital***

*Increases in the Share Capital*

We may increase our share capital either:

by issuing additional shares or securities giving access, immediately or in the future, to a portion of our share capital; or

by increasing the nominal value of our existing shares.

We may issue additional shares:

for cash;

for assets contributed in kind;

upon the conversion of debt securities or other debt instruments previously issued;

by the capitalization of reserves, retained earnings or issuance premiums;

for cash credits payable by the company; or

for any combination of the preceding items.

We may increase our share capital only with the approval of the shareholders at an extraordinary general meeting, following a recommendation of the board of directors. However, when a capital increase takes place through capitalization of reserves, retained earnings or issuance premiums, the general meeting at which the decision to increase the capital is taken follows the quorum and majority requirements of ordinary general meetings. Increases effected by an increase in the nominal value of shares require unanimous approval of the shareholders, unless effected by capitalization of reserves, retained earnings or issuance premiums. See Attendance and Voting at Shareholders Meetings.

The shareholders may delegate the right to carry out any increase in share capital to the board of directors, provided that the increase has been previously authorized by the shareholders. The board of directors may further delegate this right to the chief executive officer. Each time the shareholders decide on a share capital increase or decide to delegate to the board of directors the right to carry out a capital increase, they must also determine whether or not to proceed with a capital increase reserved for employees of the company and its subsidiaries or whether to delegate to the board of directors the right to carry out such reserved capital increase.

At a meeting held on May 13, 2004, our shareholders authorized the board of directors to increase our share capital, through one or more issuances of securities, by up to an aggregate nominal amount of 23,000,000. This authorization is effective for a period not to exceed 26 months. Our shareholders have preferential rights to subscribe for such the additional securities. At the same meeting, our shareholders accepted to withdraw the shareholders preferential subscription rights in respect of a second authorization to increase our share capital, through one or more issuances of securities, by up to an aggregate nominal amount of 23,000,000. This second authorization is also effective for the same period of time. Capital increases made pursuant to both authorizations may not exceed an aggregate nominal amount of 23,000,000.



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### *Decreases in Share Capital*

An extraordinary general meeting of shareholders also has the power to authorize and implement a reduction in share capital which may be effected either:

by decreasing the nominal value of our outstanding shares; or

by reducing the number of our outstanding shares.

The number of outstanding shares may be reduced either by an exchange of shares or by the repurchase and cancellation of shares.

According to French company law, any decrease in our share capital requires approval by the shareholders entitled to vote at an extraordinary general meeting. In the case of a capital reduction, other than a reduction to absorb losses and a reduction pursuant to a program of acquisition of shares, all holders of shares must be offered the possibility to participate in such a reduction. See Acquisition of our own Shares . All holders of shares in a given class of shares must be treated equally unless each affected shareholder agrees otherwise. Our creditors may oppose a capital reduction during the 20-day period following the registration with the Registry of Commerce of the minutes of the shareholders meeting approving the capital reduction. Upon a creditor's request, the *Tribunal de Commerce* may order us to reimburse our creditors or guarantee our debt.

### ***Preferential Rights to Subscribe***

According to French law, our current shareholders have preferential rights on a pro rata basis to subscribe (*droit préférentiel de souscription*) for any issue of additional shares to be subscribed in cash or by set-off of cash debts and to subscribe to any issue of other securities which may either directly or indirectly result in, or carry rights to subscribe for, additional shares issued by us. An extraordinary shareholders meeting may decide to withdraw the shareholders preferential right to subscribe, either in respect of any specific issue of securities, or more generally, with respect to an authorization by the extraordinary general meeting, to issue shares or other equity securities, for a duration not to exceed 26 months or 18 months in the case of an authorization given for an issue of securities to identified persons or categories of persons. Shareholders may also individually waive their preferential right to subscribe in respect of any offering. French law requires that the board of directors and our independent auditors present reports that specifically address any proposal to waive preferential subscription rights. In the event of a waiver, the issue of securities must be completed within the period prescribed by law. Preferential rights to subscribe, if not previously waived, are tradable during the subscription period relating to a particular offering of shares and may be quoted on Euronext Paris. In the event that the preferential rights of shareholders are withdrawn, the shareholders meeting has the power to grant, or to authorize the board of directors to grant, existing shareholders a non-transferable priority right (*délai de priorité*) to subscribe for new shares issued during a limited period.

### ***Attendance and Voting at Shareholders Meetings***

#### *General*

In accordance with French law, general shareholders meetings may be ordinary or extraordinary. Ordinary general meetings of shareholders are required for matters such as:

the election, replacement and removal of directors;

the appointment of statutory auditors;

the approval of annual accounts; and

the declaration of dividends or the authorization for dividends to be paid in shares.

Extraordinary general meetings of shareholders are required for approval of all matters and decisions involving: changes in our *statuts* (including changing our corporate purposes);

increasing or reducing our share capital;



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extending or abridging the duration of the company;

mergers and spin-offs;

creation of a new class of shares;

issuance of debt securities;

authorization of notes or other securities giving access, immediately or in the future, to a portion of our share capital;

transformation of our company into another legal form; and

voluntary liquidation of our company before the end of its statutory term.

*Annual Ordinary Meetings*

Our Board of Directors must convene the annual ordinary general meeting of shareholders each year for approval of the annual accounts. This meeting must be held within six months of the end of our fiscal year, unless such time is extended by an order of the President of the *Tribunal de Commerce* pursuant to a request. Other ordinary or extraordinary meetings may be called at any time during the year. Meetings of shareholders may be convened by the board of directors or, in the circumstances prescribed by law, if the board of directors fails to call such a meeting, by our statutory auditors or by an administrator appointed by the President of the *Tribunal de Commerce*. Any of the following may request the President of the *Tribunal de Commerce* to appoint an administrator:

one or several shareholders holding in the aggregate at least 5% of our share capital;

any interested parties in cases of emergency;

the workers' committee in case of emergency; or

an association of holders of shares who have held the shares in registered form held for at least two years and holding, in the aggregate, at least 1% of our voting rights.

*Notice of Shareholders' Meetings*

French law requires that a preliminary notice (*avis de réunion*) of a general meeting of a listed company be published in the *Bulletin des Annonces légales obligatoires* (BALO) at least 30 days before the date set for the meeting. The preliminary notice must first be sent to the *Autorité des Marchés Financiers* (the AMF), the self-regulatory organization that has general regulatory authority over the French regulated exchanges, with an indication of the date of its publication in the BALO. The notice calling a general meeting must state the matters to be discussed at the meeting and, with the sole exception of removal and replacement of directors (which may be discussed at any meeting), any matter which does not appear on the agenda may not be discussed at the meeting. Within 10 days of publication, additional resolutions to be submitted for approval by the shareholders at the meeting may be proposed to the board of directors by:

one or more shareholders holding, in the aggregate, a certain percentage of our share capital (0.5% to 5% determined on the basis of a statutory formula relating to capitalization); or

a duly authorized association of shareholders who have held their shares in registered form for at least two years and holding, in the aggregate, at least 1% of our voting rights.

The board of directors must submit these resolutions to a vote of the shareholders.

At least 15 days before the date set for any general meeting on first call, and at least six days before any second call, we must send a notice (*avis de convocation*) by mail to all holders of registered shares who have held such shares for more than one month prior to the date of the notice. Notice of the meeting must also be given by publication in a

journal authorized to publish legal announcements in the local administrative department (*département*) in which we are registered as well as in the BALO, with prior notice having been given to the AMF. Such a notice must include a description of the type, agenda, place, date and time of the meeting.

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*Attendance and Voting at Shareholders Meetings*

Attendance and exercise of voting rights at both ordinary and extraordinary general meetings of shareholders are subject to certain conditions. A shareholder does not need to have a minimum number of shares in order to be able to attend or be represented at an extraordinary general meeting. Any statutory provision to the contrary is null and void. In order to participate in any general meeting, a holder of registered shares must have its shares registered in his name or in the name of the accredited financial intermediary referred to in article L. 228-1 of the French Commercial Code in a shareholder account maintained by us or on our behalf at least five days prior to the meeting. Similarly, a holder of bearer shares must obtain from the accredited financial intermediary (*intermédiaire financier habilité*) with whom such holder has deposited its shares a certificate indicating the number of bearer shares the holder owns and stating that these shares are blocked in the account held by the intermediary in the holder's name until the date of the meeting (*certificat d'immobilisation*). This certificate must be deposited at the place specified in the notice of the meeting at least five days before the meeting convenes.

*Proxies and Votes by Mail*

Subject to the foregoing, all shareholders have the right to participate in general meetings, either in person, by a proxy or by mail and, subject only to any applicable laws, may vote according to the number of shares they hold. Proxies may be granted by a shareholder to:

his or her spouse;

another shareholder; or

in the case of a corporation, to a legal representative.

Alternatively, the shareholder may send us a proxy in blank without nominating any representative.

In the last case, the chairman of the shareholders' meeting will vote the shares with respect to which such blank proxy has been given in favor of all resolutions proposed by the board of directors and against all others. We will send proxy forms to any shareholder on request. In order to be counted, we must receive proxy forms at our registered office or at such other address indicated in the notice convening the meeting prior to the date of the relevant general meeting. With respect to voting by mail, we must send our shareholders a form of such vote and we must receive the form at least three days prior to the date of the relevant general meeting.

*Quorum*

Under French law, a quorum requires the presence in person or voting by mail or by proxy of shareholders representing, in the aggregate, not less than:

25% of the shares entitled to vote (in the case of an ordinary general meeting or an extraordinary general meeting deciding upon any capital increase by capitalization of reserves, retained earnings or share premium); or

33.33% of the shares entitled to vote (in the case of any other extraordinary general meeting).

If a quorum is not present at any meeting, the meeting is adjourned. There is no quorum requirement when an ordinary general meeting is reconvened but only questions which were on the agenda of the adjourned meeting may be discussed and voted upon. When an extraordinary general meeting is reconvened, the presence in person or by proxy of shareholders having not less than 25% of the shares entitled to vote is required for a quorum except when an increase in our share capital is proposed through incorporation of reserves, retained earnings or share premium, in which case the applicable quorum requirements are those applicable to ordinary general meetings. If such a quorum is not present, the reconvened meeting may be adjourned for a maximum of two months, but no deliberations may take place without such a quorum.

Any shareholder may also, if the Board of Directors or its Chairman allows at the time of the convocation to a general meeting, attend the meeting via video-conference or by means of electronic telecommunication or tele-transmission subject to, and in accordance with, the conditions laid down by the legislation or the regulations then

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in force. This shareholder is then considered to be present at the meeting when calculating the quorum and the majority.

*Majority*

At an ordinary general meeting or an extraordinary general meeting deciding upon any capital increase by capitalization of reserves, retained earnings or share premium, a simple majority of votes cast by the shareholders present or represented at such meeting is required to pass a resolution. At any other extraordinary general meeting, a two-thirds majority of votes cast is required to pass a resolution. A unanimous vote, however, is required to increase the liabilities of shareholders. Abstention from voting by those present or represented by proxy or voting by mail is viewed as a vote against the resolutions submitted to a vote.

Our *statuts* provide that, as from May 22, 1997, each share that is fully paid and has been held in registered form by the same shareholder for a period of at least two consecutive years will entitle such shareholder to two votes. In the event of capital increases effected by a free attribution of shares, as a result of the incorporation of reserves, retained earnings or issuance premiums, the shares attributed by reason of and proportionately to the ownership of shares holding double voting rights are immediately granted double voting rights as if they themselves had fulfilled the requirements therefore. Under French company law, shares held by entities controlled directly or indirectly by us are not entitled to voting rights and do not count for quorum or majority purposes.

***Acquisition of our own Shares***

Under French law, our company may not issue shares to itself. However, we may, either directly or through a financial intermediary acting on our behalf, purchase our shares:

- (1) to reduce our share capital, canceling the shares we purchase, with our shareholders' approval at an extraordinary general meeting;
- (2) to provide shares to our employees under a profit sharing plan or stock option plan; or
- (3) in the context of a share repurchase program that allows us to acquire up to 10% of our share capital for a maximum period of 18 months. To acquire shares in the context of a share repurchase program, we must first file an information memorandum (*note d'information*) with the AMF and obtain our shareholders' approval at an ordinary general meeting.

We may not repurchase under either (2) or (3) above an amount of shares that would result in our company holding, directly or through a person acting on our behalf, more than 10% of our outstanding share capital, without canceling the said 10% first. In addition, we may not cancel more than 10% of our outstanding share capital over any 24-month period.

We must hold any shares we repurchase in registered form. These shares also must be fully paid up. Shares repurchased by us are deemed outstanding under French law but are not entitled to dividends or voting rights and we may not ourselves exercise preferential subscription rights. The shareholders, at an extraordinary general meeting, may decide not to take such shares into account in determining the preferential rights to subscribe attached to the other shares (if such a decision is not taken, these rights must be either sold on the market before the end of the subscription period or distributed to the other shareholders on a pro rata basis.)

A direct subsidiary is generally prohibited by French law from holding shares in its parent and, in the event it becomes a holder of shares, such subsidiary must transfer such shares within one year following the date on which it becomes the holder thereof. An indirect subsidiary may only acquire shares if such subsidiary demonstrates a business purpose for holding the shares but in no event will it be entitled to vote such shares.

At the shareholders' meeting to be held on May 13, 2004, our shareholders renewed the existing authorization to acquire up to 10 percent of our share capital through purchases of shares and to resell shares so acquired for the 18 months following the date of such meeting. As required by article 241-2 of the General Regulation (*Règlement Général*) of the *Autorité des Marchés Financiers*, on April 14, 2004, we filed a *note d'information* with the AMF with respect to our share acquisition program.



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Under such authorization, we are allowed to carry out transactions on our shares with the following objectives:

to sell or purchase our shares in accordance with the stock market situation;

to stabilize our share price by systematic interventions against the market trend;

to give shares in exchange in the scope of external growth or when issuing securities giving access to the share capital of the company;

to purchase shares in the scope of the issuance of rights connected to securities entitling their holders to receive company shares by redemption, conversion, exchange, presentation of a warrant or by any other means; and

to purchase or sell shares in the scope of the allocation to employees of options to purchase shares of the company.

In accordance with such objectives, the treasury shares so acquired may be either:

Retained by us;

Transferred, by any means including exchange of securities, sale on the stock market or by individual agreement, or through a sale of a block of shares; or

or cancelled, provided such cancellation is authorized by an extraordinary general meeting.

The general meeting approved a maximum purchase price would be 80. The maximum sale price has been set at 15. The maximum number of shares that we are entitled to hold is 10% of our share capital as of December 31, 2003, after deduction of 44,799 shares acquired under previous authorizations, i.e. 1,123,772 shares, for a maximum investment amount of 89,901,760.

The shares may be acquired on one or several occasions, by any method, including by agreement, by stock market purchase, by purchasing blocks of shares or by an offer to buy, may take place at any time, including during a take-over bid.

This authorization was granted for a period of 18 months from May 13, 2004 and cancelled and replaced the authorization granted to the board of directors by the general meeting held on May 15, 2003.

During fiscal year 2004, we have implemented the share repurchase plans authorized by our shareholders in May 2003 and May 2004, respectively, as follows:

<b>Date of the general meeting having authorized the share re-purchase plan</b>	<b>Price range</b>	<b>Shares purchases</b>	<b>Total amount (charges and commissions excluded)</b>
May 15, 2003	Maximum purchase price: 50 Minimum sale price: 5	47,400	1,747,359
May 13, 2004	Maximum purchase price: 80 Minimum sale price: 15	500	21,740

In addition, on May 16, 2003, we entered into a liquidity agreement with CIC Securities in compliance with the Code of Practice of the French Investment Company Association (the *Association Française des Entreprises d'Investissement* or AFEI) approved by the COB on April 10, 2001.

CIC Securities has as its sole mandate to support the liquidity of our shares and reduce the volatility in our share price, in compliance with the rules of operation applicable in a given market. CIC Securities acts with full independence and does not receive any instruction from us with respect to its interventions.



Upon implementation of this contract, we allocated an amount of 360,000 to the liquidity account. Our shares represents 90% of the value of this liquidity account.

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During fiscal year 2004, CIC Securities has:

purchased 322,276 shares at an average weighted price of 42.93; and

sold 322,439 CGG shares at a average weighted price of 42.68.

During fiscal year 2004, we sold all of the 89,067 shares in our company that we held directly (outside the scope of the liquidity contract) for an aggregate amount of 4,411,526.39.

As of December 31, 2004, we no longer hold directly (i.e. outside the scope of the liquidity contract) any shares in our company. The remaining shares held by us through the liquidity account totaled 2,970 as of December 31, 2004.

***Trading in Our Own Shares***

Under European Commission Regulation Number 2273/2003 of December 22, 2003 applicable in France since October 13, 2004, trades by a company in its own shares are deemed valid when the following conditions are met:

each trade must not be made at a price higher than the higher of the price of the last independent trade and the highest current independent bid on Euronext Paris;

if we carry out the purchase of our own shares through derivative financial instruments, the exercise price of those derivative financial instruments must not be above the higher of the last independent trade and the highest current independent bid; and

the trade must not account for more than 25% of the average daily trading volume on Euronext Paris in the shares during the twenty trading days immediately preceding the trade.

However, there are two periods during which we are not permitted to trade in our own securities: the 15-day period before the date on which we make our consolidated annual accounts public, and the period beginning on the date on which we become aware of information that, if disclosed, would have a significant impact on the market price of our securities and ending on the date this information is made public.

We must file a report with the AMF containing details of all transactions we make in our shares no later than the end of the seventh trading day following the date of execution of such transactions. In addition, we must also file with the AMF a monthly report containing details of all transactions relating to our shares that we may have carried out during the month. Such reports are then posted on the AMF website.

***Form, Holding and Transfer of Shares***

*Form of Shares.* Our *statuts* provides that our fully paid shares may be held in either registered or bearer form at the option of the shareholder. We may avail ourselves of the procedure known as *titres au porteur identifiables*, according to which we are entitled to request Euroclear France to disclose the name, nationality, address and the number of shares held by holders of those securities of ours which have, or which may in the future acquire, voting rights.

*Holding of Shares.* In accordance with French law concerning dematerialization of securities, the ownership rights of holders of shares are represented not by share certificates but rather by book entries. According to our *statuts*, registered shares are entered into an account held by us or by a representative nominated by us, while shares in bearer form are placed in an account held by an accredited financial intermediary (*intermédiaire financier habilité*).

We maintain a share account with Euroclear France in respect of all shares in registered form, which, in France, is administered by BNP Paribas Securities Services, acting on our behalf as our agent. Shares held in registered form are inscribed in the name of each shareholder (either directly, or, at the shareholder's request, through such shareholder's accredited financial intermediary) in separate accounts maintained by BNP Paribas Securities Services on our behalf. Each shareholder account shows the name of the holder and the number of shares held and, in the case of shares inscribed through an accredited financial intermediary, shows that they are

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so held. BNP Paribas Securities Services, as a matter of course, issues confirmations to each registered shareholder as to holdings of shares inscribed in the shareholder's accounts, but these confirmations do not constitute documents of title.

Shares held in bearer form are held and inscribed on the shareholder's behalf in an account maintained by an accredited financial intermediary with Euroclear France separately from our share account with Euroclear France. Each accredited financial intermediary maintains a record of shares held through it and will issue certificates of inscription in respect thereof. Shares held in bearer form may only be transferred effected through accredited financial intermediaries and Euroclear France. As noted above, our *statuts* allow us to request from Euroclear France details concerning the identity of the holders of shares in bearer form at any time.

*Transfer of Shares.* Our *statuts* do not contain any restrictions relating to the transfer of shares. An owner of shares resident outside France may trade such shares on Euronext Paris. Should such owner (or the broker or other agent) require assistance in this connection, an accredited financial intermediary should be contacted.

Prior to any transfer of shares held in registered form on Euronext Paris, such shares must be converted into bearer form and, accordingly, must be registered in an account maintained by an accredited financial intermediary. A shareholder may initiate a transfer by giving instructions (through an agent if appropriate) to the relevant accredited financial intermediary. For dealing on Euronext Paris an *impôt sur les opérations de bourse*, or a tax assessed on the price at which the securities were traded, is payable at a rate of 0.3% on the portion of the transaction up to 153,000 and at a rate of 0.15% on the portion of the transaction over 153,000. Such stock exchange stamp duty is subject to rebate of 23 per transaction and a maximum assessment of 610 per transaction. However, non-residents of France are not required to pay this tax. In addition, a fee or commission is payable to the French broker involved in the transaction regardless of whether the transaction occurs within or outside France. No registration duty would normally be payable in France on the transfer of our shares unless a transfer instrument has been executed in France. See *Taxation on Sale or Disposal of Shares or ADSs*.

***Requirements for Holdings Exceeding Certain Percentages***

The French company law provides that any individual or entity, who acting alone or in concert with others, acquires more than 5%, 10%, 20%, 33<sup>1</sup>/<sub>3</sub>%, 50%, or 66<sup>2</sup>/<sub>3</sub>% of our outstanding shares or voting rights thereof or whose shareholding falls below any such percentage must notify us within five (5) trading days of the date such threshold was crossed of the number of shares it holds and of the voting rights attached thereto. Such individual or entity must also notify the AMF within five (5) trading days of the date such threshold was crossed.

In order to permit holders of our shares to give the notice required by law, we must publish in the BALO, not later than 15 calendar days after our annual ordinary general meeting of shareholders, information with respect to the total number of voting rights available as of the date of such meeting. In addition, if we are aware of a change in the number of available votes by at least 5% in the period between two annual ordinary general meetings, we must publish in the BALO, within 15 calendar days of such change, the number of voting rights then available and provide the AMF with a written notice. The AMF publishes in a weekly notice (*avis*) the total number of voting rights so notified by all listed companies, mentioning the date each such number was last updated.

If any person fails to comply with the legal notification requirement, the shares or voting rights in excess of the relevant threshold will be deprived of voting rights for all shareholders' meeting until the end of a two-year period following the date on which the owner thereof complies with the notification requirements. In addition, any shareholder who fails to comply with the above requirements may have all or part of its voting rights (and not only with respect to the shares in excess of the relevant threshold) suspended for up to five years by the *Tribunal de Commerce* at the request of our chairman, any shareholder or the AMF, and may be subject to criminal penalties.

French law imposes additional reporting requirements on persons who acquire more than 10% or 20% of our outstanding shares or voting rights. These persons must file a report with us, the AMF within 10 trading days of the date they cross the threshold. In the report, the acquirer must specify its intentions for the following 12-month period, including whether or not it intends to continue its purchases, to acquire control of our company or to seek nomination to our board of directors. The AMF makes the notice public. The acquirer must also publish a press



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release stating its intentions in a financial newspaper of national circulation in France. The acquirer may only amend its stated intentions in case of significant changes in its own situation or shareholders, or in our situation. Upon any change of intention, it must file a new report. Failure to comply with the notification requirements or to abide by the stated intentions may result in the acquirer being deprived of all or part of its voting rights, for a period of up to five years, at our request or that of the AMF or one of our shareholders.

In addition to the provisions of French company law our *statuts* provide that any shareholder who directly or indirectly acquires ownership or control of shares representing 2% or any multiple thereof of our share capital or voting rights, or whose shareholding falls below any such limit, must inform us within five (5) trading days of the crossing of the relevant threshold, of the number of shares then owned by such shareholder. Failure to comply with these notification requirements may result, at the request, recorded in the minutes of the general meeting, of one or several shareholders holding at least 2% of the capital, in the shares in excess of the relevant threshold being deprived of voting rights for all shareholder meetings until the end of a two-year period following the date on which the owner thereof has complied with such notification requirements.

*Compulsory Tender. General Regulation of the AMF* provide that a shareholder, or shareholders acting in concert, who come to own more than one-third of the voting rights or share capital of a French company listed on a regulated securities exchange in France must immediately notify the AMF, and submit a compulsory tender for all the shares of capital and all securities giving access to the share capital or voting rights of such company. The tender must be submitted on terms acceptable to the AMF. The acquisition of control of a private company, the principal asset of which is a one-third or more interest in a company listed on a regulated market in France, is treated as a direct acquisition of such interest.

In addition, the same obligation applies to any shareholder or shareholders acting in concert who, owning between one-third and 50% of the voting rights or share capital of a French company listed on a regulated market in France, increase their interest by more than 2% of the existing total number of shares or voting rights during a period of twelve months.

The AMF is vested with the power to grant relief from the obligation to tender for all of the shares of the target company and may consider certain exemptions when petitioned for such relief by the acquiring shareholders. These exemptions primarily concern previous control of the target company or a commitment to divest within a given period.

## **Material Contracts**

The following contracts (not being contracts entered into in the ordinary course of business) have been entered into by us or our subsidiaries within the two years immediately preceding the date of this document and are, or may be, material:

### ***Plan Support Agreement dated June 18, 2003 by and among us and banks, creditors and certain shareholders of Petroleum Geo Services ASA ( PGS )***

Pursuant to this agreement, we undertook to acquire up to 30% of PGS's share capital (after its financial restructuring), for a total amount of U.S.\$85 million (including U.S.\$22 million for CGG and U.S.\$60 million for Umoe Invest ASA).

### ***Underwriting Agreement dated July 25, 2003 by and among us, Petroleum Geo Services ASA and certain of its shareholders***

In accordance with this agreement, we implemented our undertakings under the above-mentioned Plan Support Agreement.

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***Mixed Capital Company Contract dated November 26, 2003 by and among Sercel SA, the Committee of the Hebei JunFeng Prospecting Equipment Company, the Dongfang Geological Prospecting Limited Liability Company, and the Xian General Factory for Oil Prospecting Equipment***

In accordance with this Agreement, the shareholders of Hebei JunFeng Prospecting Equipment Company ( Hebei ), in which Sercel owns a 51% interest, transformed the legal form of Hebei and organized its operation and defined the rights and obligations of the Hebei s shareholders.

***Sale and Purchase Agreement dated December 19, 2003 by and among Sercel Australia Pty Ltd and Thales Underwater Systems Pty Ltd***

In accordance with this agreement, our subsidiary Sercel Australia Pty Ltd, purchased part of the business of Thales Underwater Systems Pty Ltd specific to civilian marine seismic oil and gas exploration equipment and systems, for a total amount of 22 million.

***Revolving Credit Facility Agreement dated March 12, 2004 by and among us, Sercel SA, CGG Marine, Natexis Banques Populaires and certain banks and financial institutions***

On March 12, 2004, CGG, CGG Marine and Sercel signed a revolving credit facility agreement of up to U.S.\$60,000,000 with Natexis Banques Populaires acting as arranger and agent and certain banks and financial institutions acting as lenders. The purpose of this agreement was to replace our facility agreement dated September 15, 1999, as amended on August 31, 2000.

***Subscription Agreement, dated 27 September 2004, by and among us, Onex Partners LP, Onex American Holdings II LLC, Onex US Principals LP, CGG Executive Investco, LLC and Onex Corporation***

In accordance with this agreement, we sold U.S.\$84,980,000 7.75% convertible subordinated bonds due 2012 to Onex Partners and its affiliated entities and related co-investors, which bonds are convertible into new ordinary shares of our company and are redeemable in cash or, in certain circumstances, at our option at maturity, for new and/or existing ordinary shares of our company. At our option, we may also pay interest on the bonds in new and/or existing ordinary shares of our company.

***Registration Rights Agreement, dated 27 September 2004, by and among us, Onex Partners LP, Onex American Holdings II LLC, Onex US Principals LP and CGG Executive Investco, LLC***

This agreements provided certain registration rights to certain subscribers of our U.S.\$84,980,000 7.75% convertible subordinated bonds due 2012. We provide for the registration with the Securities and Exchange Commission under certain circumstances of ordinary shares of our company into which the convertible subordinated bonds are convertible.

**Exchange Controls**

***Ownership of ADSs or shares by Non-French Persons***

Under French law, there is no limitation on the right of non-resident or foreign shareholders to own or to exercise their voting rights attached to the securities they hold in a French company.

Pursuant to the French Monetary and Financial Code as implemented by Decree No. 2003-196 dated March 7, 2003, administrative authorization is no longer required of non-European residents prior to acquiring a controlling interest in a French company/with exceptions regarding sensitive economic areas such as defense, public health, etc. However a notice (*déclaration administrative*) must be filed with the French Ministry of the Economy for the acquisition of an interest in us by any person not residing in France or any group of non-French residents acting in concert or by any foreign controlled resident if such acquisition would result in (i) the acquisition of a controlling interest in us or (ii) the increase of a controlling interest in us unless such person not residing in France or group of non-French residents already controls more than two-thirds of our share capital or voting rights prior to such increase. Under existing administrative rulings, ownership of 20% or more of a French

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listed company's share capital or voting rights is regarded as a controlling interest, but a lower percentage might be held to be a controlling interest in certain circumstances (depending upon such factors as the acquiring party's intentions, the ability of the acquiring party to elect directors or financial reliance by the company concerned on the acquiring party).

Violation of this administrative notice requirement are sanctioned by a fine up to 750.

### ***Exchange Controls***

Under current French exchange control regulations, there are no limitations on the amount of payments that may be remitted by us to non-residents. Laws and regulations concerning foreign exchange control do require, however, that all payments or transfers of funds (including payments of dividends to foreign shareholders) made by a French resident to a non-resident be handled by an accredited intermediary. In France, all registered banks and substantially all credit establishments are accredited intermediaries.

### **Taxation**

The following summarizes the material French tax and U.S. federal income tax consequences to U.S. Holders (as defined below) of the ownership and disposal of ADSs.

For the purposes of this discussion, a U.S. Holder means a beneficial owner of ADSs that is:

an individual who is a citizen or resident of the United States for U.S. federal income tax purposes,

a corporation, or other entity treated as a corporation, created or organized in or under the laws of the United States or of any State thereof,

an estate the income of which is subject to United States federal income taxation regardless of its source, or

a trust if a court within the United States is able to exercise primary supervision over the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust.

A Non-U.S. Holder is a holder that is not a U.S. Holder.

This discussion is not a complete description of all of the tax consequences of the ownership or disposition of ADSs. The summary assumes that each obligation in the deposit agreement between The Bank of New York and us (the Deposit Agreement) and any related agreement will be performed in accordance with its terms and is based on the current tax laws of the Republic of France and the United States, including the U.S. Internal Revenue Code of 1986, as amended (the Code), its legislative history, existing and proposed Treasury Regulations, Internal Revenue Service (IRS) rulings and judicial opinions as well as the Convention between the United States and the Republic of France for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital dated August 31, 1994 (the Treaty), all as currently in effect and all subject to change, possibly with retroactive effect.

Your individual circumstances may affect the tax consequences of the ownership or disposition of ADSs to you, and your particular facts or circumstances are not considered in the discussion below.

For purposes of the Treaty, French tax law and the Code, U.S. owners of ADSs will be treated as owners of the corresponding number of our shares underlying those ADSs held by The Bank of New York as depositary (the

Depositary). There are currently no procedures available for holders that are not U.S. residents to claim tax treaty benefits in respect of dividends received on ADSs or shares registered in the name of a nominee. Such holders should consult their own tax advisor about the consequences of owning and disposing of ADSs.

This discussion summary is not intended to apply to holders of ADSs in particular circumstances, such as:

investors that own (directly or indirectly) 10% or more of our voting stock;

banks;

dealers in securities or currencies;





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traders in securities who elect to apply a mark-to-market method of accounting;

financial institutions;

regulated investment companies;

real estate investment trusts;

tax-exempt organizations;

insurance companies;

persons holding ADSs as part of a hedging, straddle, conversion or other integrated transaction;

U.S. Holders who hold ADSs other than as capital assets;

persons whose functional currency is not the U.S. dollar;

certain U.S. expatriates;

individual retirement accounts and other tax-deferred accounts;

partners in partnerships;

persons subject to the U.S. alternative minimum tax; and

persons who acquired ADSs pursuant to an employee stock option or otherwise as compensation.

You should consult your own tax advisor regarding the French and United States federal, state and local and other tax consequences of the purchase, ownership and disposition of ADSs in the light of your particular circumstances, including the effect of any state, local or other national laws. In particular, you should confirm whether you are eligible for the benefits of the Treaty with your advisor and should discuss any possible consequences of failing to be so eligible. You should also consult your tax advisor in the event that you become entitled to receive any dividend that is approved to be paid.

***French Taxation***

The following describes the material French tax consequences of owning and disposing of ADSs relevant to U.S. Holders which do not hold their ADSs in connection with a permanent establishment or fixed base through which a holder carries on business or performs personal services in France. The statements relating to French tax laws set out below are based on the laws in force as at the date hereof, and are subject to any changes in applicable French tax laws or in any applicable double taxation conventions or treaties with France occurring after such date.

This discussion is intended only as a descriptive summary and does not purport to be a complete analysis or list of all potential tax effects of the purchase or ownership of ADSs.

***Taxation of Dividends***

France generally imposes a 25% withholding tax on dividends distributed in cash or in the form of shares by a French corporation (such as our company) to shareholders who are not residents of France for French tax purposes. However, the Treaty generally reduces the withholding tax rate to 15% on dividends paid in cash or in the form of shares to an Eligible U.S. Holder (as defined below).

Under the Treaty, an Eligible U.S. Holder is a U.S. Holder whose ownership of ADSs is not attributable to a permanent establishment or fixed base in France and who is:

an individual or other non-corporate holder; or

a corporation that does not own, directly or indirectly, 10% or more of the capital of our company,  
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provided in each case that such holder:

is a resident of the United States under the Treaty;

is entitled to Treaty benefits under the limitation on benefits provisions in Article 30 of the Treaty; and

complies with the procedural rules to obtain Treaty benefits described below under *Taxation of Dividends Procedure to Obtain Treaty Benefits* .

***Taxation of Dividends Procedure to Obtain Treaty Benefits***

Eligible U.S. Holders must follow certain procedures in order to be eligible for the 15% dividend withholding tax under the Treaty.

An Eligible U.S. Holder who wishes to obtain a reduced withholding rate at source must:

complete a certificate (the Certificate ) as provided under Schedule III to the administrative instruction of 14 February 2005 referenced BOI 4 J-1-05;

have it certified by the U.S. financial institution that is in charge of the administration of the ADSs of that Eligible U.S. Holder; and

file it with us or the French person in charge of the payment of dividends on our shares underlying the ADSs, such as the French paying agent, in the case of our shares, or with the Depository in the case of ADSs, before the date of payment of the relevant dividend. However, if an Eligible U.S. Holder is not able to complete, have certified and file the Certificate before the date of payment of the dividend, that Eligible U.S. Holder may still benefit from the reduced 15% withholding tax rate if the U.S. financial institution that is in charge of the administration of that Holder's ADSs or underlying shares provides us or the French paying agent with certain information with respect to that Eligible U.S. Holder and his or her holding of the ADSs or the underlying shares before the date of payment of the relevant dividend.

If either of the procedures described above has not been followed before a dividend payment date or is not available to an Eligible U.S. Holder, our company or the French paying agent will withhold tax from the dividend at the normal French rate of 25%, and the Eligible U.S. Holder will be entitled to claim a refund of the excess withholding tax by filing a form RF1 A E.U. no. 5052 with the Depository or the French paying agent early enough to enable them to forward that application to the French tax authorities before December 31 of the year following the calendar year in which the related dividend was paid.

The Depository will provide to all U.S. Holders of ADSs the applications or certificates, together with instructions, and will arrange for the filing with the French tax authorities of all applications and certificates completed by U.S. Holders of ADSs and returned to the Depository in sufficient time to effect the filing.

The Certificate, the form RF1 A E.U. no. 5052 and their respective instructions are available at the center for non-resident taxation (*centre des impôts des non-résidents*) (9, rue d Uzès, 75094 Paris Cedex 2, France).

***Taxation on Sale or Disposal of ADSs***

Subject to the provisions of any relevant double tax treaty, persons who are not French residents for the purpose of French taxation (as well as, under certain conditions, foreign states, international organizations and certain foreign public bodies) and who have held not more than 25%, directly or indirectly, of the dividend rights (*bénéfices sociaux*) of our company at any time during the preceding five years, are not generally subject to any French income tax or capital gains tax on any sale or disposal of ADSs.

If a transfer of listed shares is evidenced by a written agreement, such share transfer agreement is, in principle, subject to registration formalities and therefore to a 1% (this rate being increased to 1.1% for transactions entered into as from January 1, 2006) registration duty assessed on the higher of the purchase price or the market value of the shares (subject to a maximum assessment of 3,049 per transfer for transactions

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entered into until December 31, 2005, and 4,000 per transfer for transactions entered into thereafter). However, under certain circumstances, no duty is due if such written share transfer agreement is executed outside France.

***French Estate and Gift Taxes***

Pursuant to The Convention Between the United States of America and the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritance and Gifts, a transfer of ADSs by gift or by reason of the death of a U.S. Holder will not be subject to French gift or inheritance tax, unless (i) the donor or the transferor is domiciled in France at the time of making the gift or at the time of his or her death, or (ii) the ADSs were used in, or held for use in, the conduct of a business through a permanent establishment or fixed base in France. In such a case, the French gift or inheritance tax may be credited against the U.S. gift or inheritance tax. This tax credit is limited to the amount of the U.S. gift or inheritance tax due on the ADSs.

***French Wealth Tax***

The French wealth tax (*impôt de solidarité sur la fortune*) does not generally apply to a U.S. Holder who is a resident of the United States as defined in the provisions of the Treaty, unless the ADSs form part of the business property of a permanent establishment or fixed base in France.

***United States Taxation***

The summary assumes that we are not a passive foreign investment company (a PFIC) for U.S. federal income tax purposes, which we believe to be the case. Our possible status as a PFIC must be determined annually and therefore may be subject to change. If we were to be a PFIC in any year, materially adverse consequences could result for U.S. Holders.

**THE SUMMARY OF U.S. FEDERAL INCOME TAX CONSEQUENCES SET OUT BELOW IS FOR GENERAL INFORMATION ONLY. U.S. HOLDERS SHOULD CONSULT THEIR TAX ADVISERS AS TO THE PARTICULAR TAX CONSEQUENCES TO THEM OF OWNING THE ADSs, INCLUDING THEIR ELIGIBILITY FOR THE BENEFITS OF THE TREATY, THE APPLICABILITY AND EFFECT OF STATE, LOCAL, FOREIGN AND OTHER TAX LAWS AND POSSIBLE CHANGES IN TAX LAW.**

***Dividends***

*General.* Distributions paid on our shares out of current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), before reduction for any French withholding tax paid by us with respect thereto, will generally be taxable to a U.S. Holder as foreign source dividend income in the year in which the distribution is received (which, in the case of a U.S. Holder of ADSs, will be the year of receipt by the Depository), and will not be eligible for the dividends received deduction allowed to corporations. Distributions in excess of current and accumulated earnings and profits will be treated as a non-taxable return of capital to the extent of the U.S. Holder's basis in the ADSs and thereafter as capital gain.

For taxable years that begin after December 31, 2002 and on or before December 31, 2008, dividends paid by us will be taxable to a non-corporate U.S. Holder at the special reduced rate normally applicable to capital gains, provided we qualify for the benefits of the Treaty. A U.S. Holder will be eligible for this reduced rate only if it has held the ADSs for more than 60 days during the 120-day period beginning 60 days before the ex-dividend date. On February 19, 2004, the IRS announced that it will permit taxpayers to apply a proposed legislative change to the holding period requirement described in the preceding sentence as if such changes were already effective. This legislative technical correction would change the minimum required holding period, retroactive to January 1, 2003, to more than 60 days during the 121-day period beginning 60 days before the ex-dividend date.

*Foreign Currency Dividends.* Dividends paid in euro will be included in income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the day the dividends are received by the Depository,

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regardless of whether the euro are converted into U.S. dollars at that time. If dividends received in euro are converted into U.S. dollars on the day they are received by the Depository, the U.S. Holder generally will not be required to recognize foreign currency gain or loss in respect of the dividend income.

***Effect of French Withholding Taxes***

As discussed above under *Taxation French Taxation Taxation of Dividends*, under French domestic law, dividends paid by us to a non-resident shareholder are subject to a 25% withholding tax. Under the Treaty, however, the rate of withholding tax applicable to Eligible U.S. Holders is reduced to a maximum of 15%. Please see *Taxation French Taxation Taxation of Dividends Procedure to Obtain Treaty Benefits* for the procedure to claim the *avoir fiscal* and reduced rate of withholding tax under the Treaty.

An Eligible U.S. Holder will generally be entitled, subject to certain limitations, to a credit against its U.S. federal income tax liability, or a deduction in computing its U.S. federal taxable income, for any French tax withheld from a dividend. Eligible U.S. Holders will not be entitled to a foreign tax credit for the amount of any French taxes withheld in excess of the 15% maximum rate, and with respect to which the holder can obtain a refund from the French taxing authorities. For purposes of the foreign tax credit limitation, foreign source income is classified in one of several

baskets, and the credit for foreign taxes on income in any basket is limited to U.S. federal income tax allocable to that income. Dividends paid by us generally will constitute foreign source income in the passive income basket. In certain circumstances, a U.S. Holder may be unable to claim foreign tax credits (and may instead be allowed deductions) for foreign taxes imposed on a dividend if the U.S. Holder has not held the ADSs for at least 16 days in the 30-day period beginning 15 days before the ex dividend date.

U.S. Holders that are accrual basis taxpayers must translate French taxes into U.S. Dollars at a rate equal to the average exchange rate for the taxable year in which the taxes accrue, while all U.S. Holders must translate taxable dividend income into U.S. Dollars at the spot rate on the date received. This difference in exchange rates may reduce the U.S. dollar value of the credits for French taxes relative to the U.S. Holder's U.S. federal income tax liability attributable to a dividend.

***Exchange of ADSs for Shares***

No gain or loss will be recognized upon the exchange of ADSs for the U.S. Holder's proportionate interest in our ordinary shares. A U.S. Holder's tax basis in the withdrawn shares will be the same as the U.S. Holder's tax basis in the ADSs surrendered, and the holding period of the shares will include the holding period of the ADSs.

***Sale or other Disposition***

Upon a sale or other disposition of ADSs (other than an exchange of ADSs for shares), a U.S. Holder generally will recognize capital gain or loss for U.S. federal income tax purposes equal to the difference, if any, between the amount realized on the sale or other disposition and the U.S. Holder's adjusted tax basis in the ADSs. This capital gain or loss will be long-term capital gain or loss if the U.S. Holder's holding period in the ADSs exceeds one year. Any gain or loss will generally be U.S. source.

***Passive Foreign Investment Company Status***

A foreign corporation will be a PFIC in any taxable year in which either (i) 75% or more of its gross income consists of certain specified types of passive income or (ii) the average percentage of its assets (by value) that produce or are held for the production of passive income is at least 50%. We do not expect that we will be a PFIC in 2004, but our possible status as a PFIC must be determined annually and therefore we might become a PFIC in future years.

If we were a PFIC in any taxable year during which a U.S. Holder owned ADSs and the U.S. Holder had not made a mark to market or qualified electing fund election, the U.S. Holder would generally be subject to special rules (regardless of whether we continued to be a PFIC) with respect to (i) any excess distribution (generally, any distributions received by the U.S. Holder on ADSs in a taxable year that are greater than 125% of the average

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annual distributions received by the U.S. Holder in the three preceding taxable years or, if shorter, the U.S. Holder's holding period for the ADSs and (ii) any gain realized on the sale or other disposition of ADSs. Under these rules (a) the excess distribution or gain would be allocated ratably over the U.S. Holder's holding period, (b) the amount allocated to the current taxable year and any taxable year prior to the first taxable year in which we are a PFIC would be taxed as ordinary income, and (c) the amount allocated to each of the other taxable years would be subject to tax at the highest rate of tax in effect for the applicable class of taxpayer for that year and an interest charge for the deemed deferral benefit would be imposed with respect to the resulting tax attributable to each such other taxable year. If we were a PFIC, a U.S. Holder of ADSs would generally be subject to similar rules with respect to distributions to us by, and dispositions by us of the stock of, any direct or indirect subsidiaries of ours that were also PFICs. Furthermore, a U.S. Holder who beneficially owns an interest in a PFIC is generally required to file an annual information return on IRS Form 8621 describing the distributions received from and any gain realized upon the disposition of a beneficial interest in the PFIC.

***Backup Withholding and Information Reporting***

Payments of dividends and other proceeds with respect to ADSs, by a U.S. paying agent or other U.S. intermediary will be reported to the IRS and to the U.S. Holder as may be required under applicable regulations. Backup withholding may apply to these payments if the U.S. Holder fails to provide an accurate taxpayer identification number or certification of exempt status or fails to report all interest and dividends required to be shown on its U.S. federal income tax returns. Certain U.S. Holders (including, among others, corporations) are not subject to backup withholding. U.S. Holders should consult their tax advisers as to their qualification for exemption from backup withholding and the procedure for obtaining an exemption.

**Dividends and Paying Agents**

Not applicable.

**Statement by Experts**

Not applicable.

**Documents on Display**

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act) applicable to foreign private issuers. In accordance with the Exchange Act, we electronically file or submit reports, including annual reports on Form 20-F and interim reports on Form 6-K, and other information with the Securities and Exchange Commission. You may obtain these reports and other information by sending a written request to Compagnie Générale de Géophysique, 1, rue Léon Migaux, 91300 Massy, France, Attention: Investor Relations Officer, Telephone: (33) 1 64 47 3000.

You can inspect and copy these reports, and other information, without charge, at the Public Reference Room of the Commission located at 450 Fifth Street, N.W., Washington, D.C. 20549. You can also obtain copies of these materials at prescribed rates from the Public Reference Room of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549 or by calling the Commission at 1-800-SEC-0330. The Commission also maintains a web site at <http://www.sec.gov> that contains reports and other information regarding registrants that file electronically with the Commission.

In addition, you can inspect material filed by us at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005, on which American Depositary Shares representing shares of our common stock are listed. As a foreign private issuer, we are not subject to the proxy rules under Section 14 or the short-swing insider profit disclosure rules under Section 16 of the Exchange Act.

**Subsidiary Information**

Not applicable.

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Because we operate internationally, we are exposed to general risks linked to operating abroad. The table below provides information about our market sensitive financial instruments and constitutes a forward-looking statement. Our major market risk exposures are changing interest rates and currency fluctuations.

**Interest Rate Risk**

Our policy is to manage interest rates through use of a combination of fixed and floating rate debt. Our exposure to interest rate fluctuations is reduced to the extent that the main part of our financial debt at December 31, 2004 consisted of a bond issue maturing in November 2007 and bearing a fixed interest rate and subordinated bonds convertible into new ordinary shares or redeemable into new shares and/or existing shares and/or in cash maturing in November 2012 and also bearing a fixed interest rate. A large part of our sources of liquidity also consists of long-term credit facilities and capital leases of various durations with fixed interest rates. However, our sources of liquidity include credit facilities with financial institutions charging variable interest rates over the course of drawdown periods of from one to twelve months. We may also use interest rate swaps to adjust interest rate exposures when appropriate based upon market conditions.

**Foreign Exchange Rate Risk**

As a company that derives a substantial amount of its revenue from sales internationally, we are subject to risks relating to fluctuations in currency exchange rates. In each of the years ended December 31, 2004, 2003 and 2002, over 90% of our operating revenues and approximately two-thirds of our operating expenses were denominated in currencies other than the euro. These included the U.S. dollar and, to a significantly lesser extent, other non-euro Western European currencies, principally the British pound and the Norwegian kroner. In addition, a significant portion of our revenues that were invoiced in euros related to contracts that were effectively priced in U.S. dollars, as the U.S. dollar often serves as the reference currency when bidding for contracts to provide geophysical services. Our exposure to fluctuations in the euro/ U.S. dollar exchange rate has increased considerably over the last few years due to increased sales outside of Europe.

We attempt to match foreign currency revenues and expenses in order to balance our net position of receivables and payables denominated in foreign currencies. We also seek to improve the balance of our net position of receivables and payables denominated in foreign currencies by maintaining a portion of our financing in U.S. dollars. In addition, our policy generally is to hedge major foreign currency cash exposures through foreign exchange forward contracts or other foreign exchange currency hedging instruments. These contracts are entered into with major financial institutions, thereby minimizing the risk of credit loss. All instruments are entered into for non-trading purposes. See Item 5: Operating and Financial Review and Prospects Trend Information Currency Fluctuations above.

**Credit Risk and Counter-Party Risk**

We seek to minimize our counter-party risk by entering into hedging contracts only with highly rated commercial banks or financial institutions and by distributing the transactions among the selected institutions. Although our credit risk is the replacement cost at the then-estimated fair value of the instrument, we believe that the risk of incurring losses is remote and those losses, if any, would not be material. Our receivables and investments do not represent a significant concentration of credit risk due to the wide variety of customers and markets in which we sell our services and products and our presence in many geographic areas. During 2003, our three largest clients accounted for 14.7%, 8.5% and 5.5% of our operating revenues, respectively. During 2004, our two largest clients accounted for 6.7% and 6.1% of our operating revenues, respectively.

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The table below presents principal amounts and related weighted average interest rates by year of maturity for our debt obligations and our foreign exchange forward contracts, all of which mature in one year or less and their fair value as of December 31, 2004:

Carrying value	2005	2006	2007	2008	2009	Thereafter	Total	Fair Value
(in millions)								
<b>Debt</b>								
U.S. dollar	57.8	5.2	110.8	0.1	0.1	63.1	237.1	243.0
Average fixed rate	10.3%	3.7%	10.6%	8.2%	8.2%	7.8%	9.6%	
U.S. dollar	2.2	1.8	1.6	0.6	0.1	0.2	6.5	6.5
Average variable rate	2.7%	2.7%	2.8%	3.1%	7.7%	7.7%	2.5%	
Euro	6.0	3.4	0.6	0.0	0.0	0.0	10.0	10.3
Average fixed rate	6.4%	6.3%	6.0%	0.0%	0.0%	0.0%	6.4%	
Euro	2.6	6.1	0.0	0.0	0.0	0.0	8.7	8.7
Average variable rate	2.4%	2.5%	0.0%	0.0%	0.0%	0.0%	2.5%	
Other currencies	0.8	0.7	0.1	0.0	0.0	0.0	1.6	1.5
Average fixed rate	27.2%	30.1%	33.7%	0.0%	0.0%	0.0%	28.9%	
Other currencies	0.2	0.1	0.1	0.0	0.0	0.0	0.4	0.5
Average variable rate	3.3%	6.6%	6.6%	6.6%	0.0%	0.0%	5.1%	
<b>Foreign Exchange</b>								
<b>Firm commitments</b>								
Forward sales (in U.S.\$)	127.0							8.6
U.S. dollars average rate	1.2453							

**Item 12: DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

Not applicable.



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**PART II**

**Item 13: DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

Not applicable.

**Item 14: MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITYHOLDERS AND USE OF PROCEEDS**

Not applicable.

**Item 15: CONTROLS AND PROCEDURES**

As of the end of the period covered by this report, we carried out an evaluation of the effectiveness of our disclosure controls and procedures (as defined in 17 CFR 240.13a-15(e) and 240.15d-15(e)), under the supervision of our management, including our Chief Executive Officer and our Chief Financial Officer. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that such controls and procedures are effective to ensure that information required to be disclosed in reports filed with or submitted to the SEC under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the Exchange Act and its rules and forms.

There has been no change in our internal control over financial reporting during the period covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Pursuant to section L.225-37 of the French commercial code, as amended by a French financial law (the *Loi de Sécurité Financière*) enacted on August 1, 2003, our Chairman of the Board must deliver a report to the annual general meeting of our shareholders on the conditions of preparation and organization of the meeting of our board of directors, on the limitations placed on the authority of the Chief Executive Officer as well as the internal control procedures put in place by CGG.

This report for 2004 informed our shareholders of the internal control procedures that we have put in place in order to circumvent identified risks resulting from our activities and the risks of errors or fraud, particularly in accounting and finance. It describes the existing control environment, i.e. our values with respect to integrity and ethics, the organization of our corporate governance committees, the functions of our disclosure committee and the way we delegate powers and determine areas of responsibility. It also describes the procedures put in place to identify and assess our major risks, whether internal or external. It gives details on our control procedures, particularly those applied to financial information, so as to ensure reliability of financial reporting. Finally, our Chairman announced in the 2004 report that he is implementing a project for the self-assessment of internal control procedures currently existing within our group.

**Item 16A: AUDIT COMMITTEE FINANCIAL EXPERT**

Pursuant to section 407 of the Sarbanes Oxley Act of 2002, Mr. Dunand was appointed Financial Expert of the Audit Committee by a Board resolution dated December 10, 2003.

**Item 16B: CODE OF ETHICS**

The Board of Directors has adopted a code of ethics that applies to the Chief Executive Officer, the Chief Financial Officer, other senior financial officers, the members of the Group Management Committee and the Disclosure Committee to promote honest and ethical conduct, full, fair, accurate, timely and understandable disclosure in periodic reports required to be filed by CGG and compliance with applicable governmental rules and regulations. A copy of this code of ethics is filed as an exhibit to this annual report.

**Table of Contents****Item 16C: PRINCIPAL ACCOUNTANT FEES AND SERVICES**

	December 31,			
	2004	2003		
	Ernst & Young	Mazars & Guerald	Barbier Frinault & Autres Ernst & Young	Mazars & Guerald
	(in thousands)			
Audit Fees <sup>(a)</sup>	647	507	479	382
Audit-Related Fees <sup>(b)</sup>	677	150	112	
Tax Fees <sup>(c)</sup>	346		471	
All Other Fees <sup>(d)</sup>	21		84	
<b>Total</b>	<b>1,691</b>	<b>657</b>	<b>1,146</b>	<b>382</b>

(a) Audit fees are the aggregate fees billed by our independent auditors for the audit of the individual and consolidated annual and semi-annual financial statements and the provision of services that are normally provided by our independent auditors in connection with statutory and regulatory filings or engagements.

(b) Audit-related fees are the aggregate fees billed by our independent auditors for services that are reasonably related to the performance of the audit or review of our financial statements and are not reported under audit fees. They include consultations relating to accounting principles and internal controls.

(c) Tax fees are the aggregate fees billed by our independent auditors for services rendered by our auditors for tax compliance, tax advice, and tax planning. They include assistance when dealing with local authorities, advice regarding tax audit and litigation, expatriate taxation and tax advice relating to mergers and acquisitions.

(d) All other fees are the aggregate fees billed by our independent auditors other than the services reported in paragraphs (a) through (c) of this item. They include training services as well as general and specific advice. In December 2003, the Board of Directors and the audit committee adopted an audit and non-audit services pre-approval policy. This policy requires the Audit Committee to pre-approve the audit and non-audit services performed by the independent auditors in order to assure that they do not impair the auditors' independence from us.

Pursuant to this policy, a list of proposed services is pre-approved, on an annual basis, without consideration of specific case-by-case services by the Audit Committee. Unless a type of service has received such general pre-approval, it will require specific pre-approval by the Audit Committee or by any person to whom the audit committee has delegated pre-approval authority. In addition, any proposed services exceeding pre-approved cost levels or budgeted amounts will also require specific pre-approval by the Audit Committee. The services list and the cost levels will be reviewed annually by the Audit Committee.

The annual audit services engagement terms and fees as defined under paragraph (a) of this item are subject to the specific pre-approval of the Audit Committee.



**Table of Contents****Item 16E: UNREGISTERED SALES OF SECURITIES AND USE OF PROCEEDS**

	<b>Total number of shares purchased</b>	<b>Average price paid per share</b>	<b>Total number of shares purchased as part of an approved program</b>	<b>Total amount paid</b>	<b>Maximum number of shares that may yet be purchased under the program</b>
January, 2004 <sup>(a)</sup>	41,101	33.69	41,101	1,384,527	1,122,280
February, 2004 <sup>(a)</sup>	20,288	37.18	20,288	754,239	1,122,865
March 2004 <sup>(a)</sup>	33,321	36.78	33,321	1,225,611	1,114,155
April, 2004 <sup>(a)</sup>	57,468	37.66	57,468	2,164,419	1,078,525
May, 2004 <sup>(a)(b)</sup>	15,734	39.88	15,734	627,469	1,078,975
June, 2004 <sup>(b)</sup>	32,243	46.51	32,243	1,499,485	1,077,039
July, 2004 <sup>(b)</sup>	33,096	46.41	33,096	1,535,956	1,074,965
August, 2004 <sup>(b)</sup>	43,079	42.08	43,079	1,812,745	1,078,115
September, 2004 <sup>(b)</sup>	30,261	49.82	30,261	1,507,459	1,074,103
October, 2004 <sup>(b)</sup>	16,417	49.16	16,417	807,009	1,076,405
November, 2004 <sup>(b)</sup>	24,327	46.83	24,327	1,139,177	1,078,205
December, 2004 <sup>(b)</sup>	22,841	50.12	22,841	1,144,811	1,165,202
<b>Total</b>	<b>370,175</b>	<b>42.15</b>	<b>370,175</b>	<b>15,602,906</b>	<b>1,165,202</b>

(a) Shares purchased as part of the 2003 program approved by the shareholders meeting of May 15, 2003, authorizing purchases of shares up to 10% of our common stock at a maximum price of 50 per share.

(b) Shares purchased as part of the 2004 program approved by the shareholders meeting of May 13, 2004 for a period of 18 months, authorizing purchases of shares up to 10% of our common stock at a maximum price of 80 per share; this program replaced the 2003 program.

**Table of Contents****PART III****Item 17: FINANCIAL STATEMENTS**

Not applicable.

**Item 18: FINANCIAL STATEMENTS**

The following audited financial statements of CGG and related schedules, together with the report of Barbier Frinault & Autres Ernst & Young, and Mazars & Guerard (as of and for the years ended December 31, 2003 and 2004) and Ernst & Young Audit and Barbier Frinault & Autres (as of and for the year ended December 31, 2002), are filed as part of this Annual Report:

	<b>Page</b>
Reports of Independent Auditors	F-1
Consolidated Financial Statements:	
Consolidated Balance Sheets as at December 31, 2004, 2003 and 2002	F-3
Consolidated Statements of Operations for the years ended December 31, 2004, 2003 and 2002	F-4
Consolidated Statements of Cash Flows for the years ended December 31, 2004, 2003 and 2002	F-5
Consolidated Statements of Changes in Shareholders' Equity as of December 31, 2004, 2003 and 2002	F-6
Notes to the Consolidated Financial Statements	F-7

The following financial statements of Arabian Geophysical & Surveying Company Limited (Argas) and related schedules, together with the report of Ernst & Young, are filed as part of this Annual Report.

	<b>Page</b>
Report of Independent Auditors	F-53
Financial Statements:	
Balance Sheet as at December 31, 2004, 2003 and 2002	F-54
Statement of Income for the years ended December 31, 2004, 2003 and 2002	F-55
Statement of Cash Flows for the years ended December 31, 2004, 2003 and 2002	F-56
Statement of Changes in Partners' Equity for the year ended December 31, 2004	F-57
Notes to the Financial Statements	F-58

**Item 19: EXHIBITS**

The following instruments and documents are included as Exhibits to this Annual Report. Exhibits incorporated by reference are so indicated.

<b>Exhibit No</b>	<b>Exhibit</b>
1.1*	English translation of the Articles of Association ( <i>statuts</i> ) of the Registrant.
2.1	Indenture dated as of November 22, 2000 between the Registrant and The Chase Manhattan Bank as Trustee, which includes the form of the 105/8% Senior Notes due 2007 as an exhibit thereto. <sup>(1)</sup>
4.1	1997 Stock Option Plan <sup>(2)</sup>
4.2	2000 Stock Option Plan <sup>(2)</sup>
4.3	2001 Stock Option Plan <sup>(3)</sup>



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<b>Exhibit No</b>	<b>Exhibit</b>
4.4	2002 Stock Option Plan <sup>(2)</sup>
4.5	2003 Stock Option Plan <sup>(4)</sup>
4.6	Lease dated as of December 4, 1990 for the Registrant's principal executive offices in Massy, France. <sup>(5)</sup>
4.7	Lease dated as of April 2, 1991 for the Registrant's data processing center in London, England. <sup>(5)</sup>
4.8	Leases dated as of November 8, 1991 and December 13, 1996 for the Registrant's data processing center in Houston, Texas, USA. <sup>(5)</sup>
4.9	Lease dated as of September 1, 1996 for Sercel's factory in Tulsa, Oklahoma, USA <sup>(5)</sup>
4.10	Time charter agreement dated as of March 1, 1996 for <i>CGG Föhn</i> , as amended on July 1, 1996. <sup>(5)</sup>
4.11	Time charter agreement dated as of May 7, 1996 for <i>CGG Harmattan</i> , as amended on July 1, 1996. <sup>(5)</sup>
4.12	Time charter agreement dated as of December 22, 1997 for <i>CGG Alizé</i> . <sup>(6)</sup>
4.13	Plan Support Agreement dated June 10, 2003 among PGS and PGS's banks, creditors and certain of its shareholders <sup>(7)</sup>
4.14	Underwriting agreement dated July 25, 2003 among PGS and certain of PGS shareholders <sup>(8)</sup>
4.15	Mixed Capital Company Contract dated November 26, 2003 by and among Sercel SA, the Committee of the Hebei JunFeng Prospecting Equipment Company, the Dongfang Geological Prospecting Limited Liability Company, and the Xian General Factory for Oil Prospecting Equipment <sup>(9)</sup>
4.16	Sale and Purchase Agreement dated December 19, 2003 by and among Sercel Australia Pty Ltd and Thales Underwater Systems Pty Ltd <sup>(9)</sup>
4.17	Revolving Credit Facility Agreement dated March 12, 2004 by and among us, Sercel SA, CGG Marine, Natexis Banques Populaires and certain banks and financial institutions <sup>(9)</sup>
4.18*	Subscription Agreement, dated 27 September 2004, by and among us, Onex Partners LP, Onex American Holdings II LLC, Onex US Principals, LP, CGG Executive Investco, LLC and Onex Corporation (we have requested that the Commission grant confidential treatment for certain portions of this document)
4.19	Registration Rights Agreement, dated 27 September 2004, by and among us, Onex Partners LP, Onex American Holdings II LLC, Onex US Principals, LP and CGG Executive Investco, LLC <sup>(10)</sup>
8*	Subsidiaries of the Registrant
11	Code of Ethics <sup>(11)</sup>
12.1**	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes Oxley Act of 2002
12.2**	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes Oxley Act of 2002
13.1**	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes Oxley Act of 2002 (10 U.S.C. § 1350)
13.2**	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes Oxley Act of 2002 (10 U.S.C. § 1350)

Notes:

\* Previously filed.

\*\* Filed herewith.

- (1) Incorporated by reference to the Registrant's Registration Statement on Form F-4 (SEC File No. 333-13060), dated January 11, 2001, as amended.
- (2) Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2002, dated May 14, 2003.



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- (3) Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2001, dated May 3, 2002.
- (4) Incorporated by reference to the Registrant's Report on Form 6-K, dated September 3, 2003.
- (5) Incorporated by reference to the Registrant's Registration Statement on Form F-1 (SEC File No. 333-06800), dated April 16, 1997, as amended.
- (6) Incorporated by reference to the Registrant's Registration Statement on Form F-3 (SEC File No. 333-11074), dated November 3, 1999, as amended.
- (7) Incorporated by reference to the Registrant's Report on Schedule 13D/ A, filed by CGG, dated June 27, 2003.
- (8) Incorporated by reference to the Registrant's Report on Form 6-K, dated November 13, 2003.
- (9) Incorporated by reference to the Registrant's Report on Form 6-K, dated May 13, 2004.
- (10) Incorporated by reference to the Registrant's Report on Form 6-K, dated November 16, 2005.
- (11) Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2003, dated June 1, 2004.

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**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F/A and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Compagnie Générale de Géophysique  
(Registrant)

/s/ Robert Brunck

Chairman and Chief Executive Officer

Date: September 19, 2005

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

**BARBIER FRINAULT & AUTRES  
ERNST & YOUNG**

41, rue Ybry  
92576 Neuilly-sur-Seine cedex

**MAZARS & GUERARD  
MAZARS**

Le Vinci 4, allée de l Arche  
92075 La Defense cedex

Report of independent auditors

To the Board of Directors and Shareholders of Compagnie Générale de Géophysique, S.A.:

We have audited the accompanying consolidated balance sheet of Compagnie Générale de Géophysique, S.A. as of December 31, 2004 and 2003 and the related consolidated statements of operations, changes in shareholders' equity and cash flows for each of the two years in the period ended 31 December 2004. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Compagnie Générale de Géophysique at December 31, 2004 and 2003, and the consolidated results of their operations and their cash flows for each of the two years in the period ended 31 December 2004, in conformity with accounting principles generally accepted in France, which differ in certain respects from accounting principles generally accepted in the United States of America (see note 28 to the consolidated financial statements).

*Neuilly-sur-Seine and Paris La Défense, France*

*April 11, 2005*

**BARBIER FRINAULT & AUTRES  
ERNST & YOUNG**

/s/ Pascal MACIOCE

Pascal MACIOCE

**MAZARS & GUERARD**

/s/ Philippe CASTAGNAC

Philippe CASTAGNAC

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**BARBIER FRINAULT & AUTRES**

41, rue Ybry  
92576 Neuilly-sur-Seine cedex

**ERNST & YOUNG AUDIT**

4, rue Auber  
75009 Paris

Report of independent auditors

To the Board of Directors and Shareholders of Compagnie Générale de Géophysique, S.A. :

We have audited the accompanying consolidated balance sheets of Compagnie Générale de Géophysique, S.A. as of December 31, 2002, and the related consolidated statements of operations, changes in shareholders' equity and cash flows for the year in the period ended December 31, 2002. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in France and in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Compagnie Générale de Géophysique and subsidiaries at December 31, 2002, and the consolidated results of their operations and their cash flows of the year in the period ended December 31, 2002, in conformity with accounting principles generally accepted in France, which differ in certain respects from accounting principles generally accepted in the United States of America (see note 28 to the consolidated financial statements).

*Neuilly-sur-Seine and Paris,  
May 9th, 2003*

BARBIER FRINAULT & AUTRES

/s/ Pascal MACIOCE

Pascal MACIOCE

ERNST & YOUNG AUDIT

/s/ Bruno PERRIN

Bruno PERRIN

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
CONSOLIDATED BALANCE SHEETS**

	Notes	2004	2003	2002
December 31				
(amounts in millions of euros)				
<b>ASSETS</b>				
Cash and cash equivalents		130.8	96.4	116.6
Trade accounts and notes receivable	3	191.7	165.5	192.3
Inventories and work-in-progress	4	81.4	64.0	65.2
Other current assets	5	58.3	57.9	130.9
<b>Total current assets</b>		<b>462.2</b>	<b>383.8</b>	<b>505.0</b>
Long term receivable and other investments	6	31.9	41.5	16.8
Investments in and advances to companies under the equity method	6	36.6	33.0	36.8
Property, plant and equipment, net	7	204.5	216.0	265.0
Goodwill and intangible assets, net	8	204.4	205.1	201.1
<b>Total assets</b>		<b>939.6</b>	<b>879.4</b>	<b>1,024.7</b>
<b>LIABILITIES AND SHAREHOLDERS EQUITY</b>				
Bank overdrafts		2.8	3.2	10.5
Current portion of long-term debt	10	73.1	24.6	58.6
Trade accounts and notes payable		97.8	78.6	92.8
Accrued payroll costs		47.8	47.7	50.6
Income taxes payable		24.9	18.3	21.9
Advance billings to customers		13.2	16.9	13.9
Other current liabilities	9	41.0	44.8	38.3
<b>Total current liabilities</b>		<b>300.6</b>	<b>234.1</b>	<b>286.6</b>
Long-term debt	10	194.1	207.8	249.2
Other long-term liabilities	11	40.1	32.1	41.1
<b>Total long-term liabilities</b>		<b>234.2</b>	<b>239.9</b>	<b>290.3</b>
<b>Minority interest</b>		<b>9.1</b>	<b>8.8</b>	<b>10.3</b>
Common stock: 24,498,368 shares authorized, 11,682,218 shares with a 2 nominal value issued and outstanding at December 31, 2004, 2003 and 2002	12	23.4	23.4	23.4
Additional paid-in capital		173.4	292.7	310.6
Amount receivable from shareholders				
Retained earnings		252.0	142.5	107.2
Net income (loss) for the year		11.1	(10.4)	17.4

Cumulative Translation Adjustment	(64.2)	(51.6)	(21.1)
<b>Total shareholders equity</b>	<b>395.7</b>	<b>396.6</b>	<b>437.5</b>
<b>Total liabilities and shareholders equity</b>	<b>939.6</b>	<b>879.4</b>	<b>1,024.7</b>

See notes to consolidated financial statements

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
CONSOLIDATED STATEMENTS OF OPERATIONS**

	Notes	Year		
		2004	2003	2002
(amounts in millions of euros, except share and per share data)				
<b>Operating revenues</b>	15	692.7	612.4	700.7
Cost of operations		(556.0)	(491.0)	(531.4)
<b>Gross profit</b>		136.7	121.4	169.3
Research and development expenses net	16	(33.5)	(26.9)	(27.1)
Selling, general and administrative expenses		(79.5)	(78.8)	(86.7)
Other revenues (expenses) net	17	12.0	(5.1)	6.1
<b>Operating income</b>		35.7	10.6	61.6
Interest and other financial income and expense net	18	(22.4)	(21.0)	(32.6)
Exchange gains net		4.4	4.6	7.9
<b>Income (loss) before income taxes</b>		17.7	(5.8)	36.9
Income tax expense	19	(9.7)	(3.1)	(17.4)
<b>Income (loss) from consolidated companies</b>		8.0	(8.9)	19.5
Equity in income of affiliates	6	10.3	6.5	6.4
Goodwill amortization	8	(6.2)	(7.7)	(6.3)
Minority interest		(1.0)	(0.3)	(2.2)
<b>Net income (loss)</b>		11.1	(10.4)	17.4
Weighted average number of shares outstanding		11,681,406	11,680,718	11,680,718
Dilutive potential shares from stock options		137,197	79,912	(a)
Dilutive potential shares from convertible bonds		(b)		
Adjusted weighted average shares and assumed option exercises		11,818,603	11,760,630	11,680,718
<b>Earnings per share</b>				
Basic		0.95	(0.89)	1.49
Diluted		0.94	(0.89)	1.49

(a) For the year ended December 31, 2002, the effects of stock options were anti-dilutive.

(b) For the year ended December 31, 2004, the effects of convertible bonds were anti-dilutive.  
See notes to consolidated financial statements

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Year		
	2004	2003	2002
	(amounts in millions of euros)		
<b>Cash flows from operating activities</b>			
Net income (loss)	11.1	(10.4)	17.4
Depreciation and amortization	71.4	72.9	134.9
Multi-client surveys amortization	66.5	80.0	87.0
Net gain on sale of assets	(10.5)	(6.0)	(4.3)
Deferred income taxes	(12.7)	(11.6)	2.0
Minority interest	1.0	0.3	2.2
Equity in income of investees, net of dividends	(5.5)	(1.3)	(2.9)
Increase (decrease) in other long-term liabilities	3.6	(5.4)	5.9
Other non-cash items	(7.7)	(20.1)	(19.0)
<b>Increase/decrease in operating assets and liabilities:</b>			
(Increase) decrease in trade accounts and notes receivable	(28.5)	16.0	60.5
(Increase) decrease in inventories and work in progress	(11.0)	(0.2)	16.7
(Increase) decrease in other current assets	11.7	70.3	(77.1)
Increase (decrease) in trade accounts and notes payable	16.0	(10.6)	0.6
Increase (decrease) in other current liabilities	(13.5)	6.6	(4.9)
<b>Net cash provided by operating activities</b>	<b>91.9</b>	<b>180.5</b>	<b>219.0</b>
<b>Cash flows from investing activities</b>			
Purchases of property, plant and equipment	(43.0)	(36.3)	(122.0)
Investments in multi-client surveys	(51.1)	(109.7)	(130.1)
Proceeds from sale of assets	23.0	16.9	22.2
Cash paid for acquired businesses, net of cash acquired	(27.9)	(16.2)	(7.4)
Investments in and advances to companies under the equity method	0.7	(0.6)	(1.2)
Increase in other investments	(1.8)	(17.9)	(2.8)
<b>Net cash used in investing activities</b>	<b>(100.1)</b>	<b>(163.8)</b>	<b>(241.3)</b>
<b>Cash flows from financing activities</b>			
Repayment of long-term debt	(16.5)	(29.6)	(53.6)
Issuance of long-term debt	73.7	4.2	131.6
Repayment of capital lease obligations	(11.9)	(14.3)	(14.0)
Government research grants received	0.7	0.6	1.1
Government research grants repaid	(1.2)	(0.3)	(1.2)
Increase (decrease) in bank overdrafts	(0.6)	(6.6)	5.0
Net proceeds from capital increase			
Dividends paid and share capital reimbursements			
Contribution from minority shareholders			

<b>Net cash provided by (used in) financing activities</b>	44.2	(46.0)	68.9
Effects of exchange rate changes on cash	(1.6)	9.1	13.3
<b>Net increase (decrease) in cash and cash equivalents</b>	34.4	(20.2)	59.9
Cash and cash equivalents at beginning of year	96.4	116.6	56.7
<b>Cash and cash equivalents at end of year</b>	130.8	96.4	116.6

See notes to consolidated financial statements

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY**

	Number of shares Issued <sup>(a)</sup>	Common stock	Additional paid-in capital	Retained earnings	Cumulative translation adjustment	Total shareholders equity
(in millions of euros, except for number of shares)						
<b>As of January 1, 2002</b>	11,680,718	23.4	347.5	70.3	21.6	462.8
Capital increase						
Net income				17.4		17.4
Other <sup>(a)</sup>			(36.9)	36.9		
Foreign currency translation					(42.7)	(42.7)
<b>As of December 31, 2002</b>	11,680,718	23.4	310.6	124.6	(21.1)	437.5
Capital increase						
Net income				(10.4)		(10.4)
Other <sup>(a)</sup>			(17.9)	17.9		
Foreign currency translation					(30.5)	(30.5)
<b>As of December 31, 2003</b>	11,680,718	23.4	292.7	132.1	(51.6)	396.6
Capital increase	1,500					
Net income				11.1		11.1
Gain on sale of treasury shares <sup>(b)</sup>				0.6		0.6
Other <sup>(a)</sup>			(119.3)	119.3		
Foreign currency translation					(12.6)	(12.6)
<b>As of December 31, 2004</b>	11,682,218	23.4	173.4	263.1	(64.2)	395.7

(a) Transfer of additional paid-in-capital to retained earnings (as permitted under French GAAP)

(b) Gain on treasury shares purchased and sold in 2004

See notes to consolidated financial statements

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Compagnie Générale de Géophysique, S.A. ( CGG ) and its subsidiaries (together, the Group ) is a global participant in the geophysical services industry, providing a wide range of seismic data acquisition, processing and interpretation services as well as related processing and interpretation software to clients in the oil and gas exploration and production business. It is also a global manufacturer of geophysical equipment.

The accounting principles applied by the Group in the preparation of the accompanying financial statements are in conformity with accounting principles generally accepted in France ( French GAAP ) and comply with the regulation Number 99-02 approved by the decree date June 22, 1999 of the French Comité de la Réglementation Comptable .

As CGG is listed on the New York Stock Exchange (American Depositary Shares), the Group is required to file on Form 20-F with the SEC its annual financial statements reconciled with the accounting principles generally accepted in the United States ( U.S. GAAP ). Beginning with the financial statements for fiscal year 2001, French GAAP differs in certain significant respects from U.S. GAAP. The differences between French GAAP and U.S. GAAP as they relate to the Group, and the reconciliation of net income and shareholders' equity to U.S. GAAP are described in Note 28.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Euro**

Consolidated financial statements are reported in euro.

**Principles of consolidation**

The consolidated financial statements include the accounts of the Company and all majority-owned subsidiaries.

Investments in which ownership interest ranges from 20% to 50% and the Group exercises significant influence over operating and financial policies are accounted for using the equity method. Certain investments where ownership is below 20% may be accounted for using the equity method when significant influence (Board membership or equivalent) of the business is exercised.

All inter-company transactions and accounts are eliminated in consolidation.

**Translation of financial statements of foreign entities and foreign currency transactions**

The accounts of all the Group's foreign subsidiaries are maintained in the local currency, which is the functional currency, with the exception of the accounts of subsidiaries operating in Indonesia and Venezuela. In those cases, the functional currency is the U.S. dollar, the currency in which these subsidiaries primarily conduct their businesses.

Transactions denominated in currencies other than the functional currency of a given entity are recorded at the exchange rate prevailing on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies other than the functional currency are re-evaluated at year-end exchange rates and any resulting unrealized exchange gains and losses are included in income.

When translating the foreign currency financial statements of foreign subsidiaries to euro, year-end exchange rates are applied to asset and liability accounts, while average annual exchange rates are applied to

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

income statement accounts. Adjustments resulting from this process are recorded in a separate component of shareholders' equity.

With respect to foreign affiliates accounted for using the equity method, the effects of exchange rate changes on the net assets of the affiliate are recorded in a separate component of shareholders' equity.

**Multi-client survey accounting**

Multi-client surveys consist of seismic surveys to be licensed to customers on a non-exclusive basis. All costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized into the multi-client library. The value of our multi-client library is stated on our balance sheet at the aggregate of those costs less accumulated amortization or at fair value, if lower. The Company reviews the library for potential impairment of our independent surveys on an ongoing basis.

*Revenue recognition:*

Revenues related to multi-client surveys result from pre-commitments and licenses after completion of the surveys ( After-sales ).

**Pre-commitments** Generally the Company obtains pre-commitments from a limited number of customers before a seismic project is completed. These pre-commitments cover part or all of the survey area blocks. In return for the commitment, the customer typically gains the ability to direct or influence the project specifications, advance access to data as it is being acquired, and favorable pricing. The Company recognizes payments that it receives during periods of mobilization as advance billing and these payments appear in the balance sheet in the item Advance billings to customers .

The Company recognizes pre-commitments as revenue when production is begun based on the ratio of project cost incurred during that period to total estimated project cost. The Company believes this ratio to be generally consistent with the physical progress of the project.

**After-sales** Generally the Company grants a license entitling non-exclusive access to a complete and ready for use, specifically defined portion of the Company's multi-client data library in exchange for a fixed and determinable payment. The Company recognizes after sales revenue upon the client executing a valid license agreement and having been granted access to the data. Within thirty days of execution and access, the client may exercise the Company's warranty that the medium on which the data is transmitted (a magnetic cartridge) is free from technical defects. If the warranty is exercised, the Company will provide the same data on a new magnetic cartridge. The cost of providing new magnetic cartridges is negligible.

**After-sales volume agreements** The Company enters into a customer arrangement in which the Company agrees to grant licenses to the customer for access to a specified number of blocks of the multi-client library. These arrangements typically enable the customer to select and access the specified blocks for a limited period of time. The Company recognizes revenue when the blocks are selected and the client has been granted access to the data.

*Amortization:*

We amortize the multi-client surveys over the period during which the data is expected to be marketed using a pro-rata method based on recognized revenues as a percentage of total estimated sales (such estimation relies on the historical sales track record).

In this respect, we use three different sets of parameters depending on the area or type of surveys considered:

Gulf of Mexico surveys are amortized on the basis of 66.6% of revenues. Starting at time of data delivery, a minimum straight-line depreciation scheme is applied on a three-year period, should total

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

accumulated depreciation from the 66.6% of revenues amortization method be below this minimum level;

Rest of the world surveys: same as above except depreciation is 83.3% of revenues and straight-line depreciation is over a five-year period from data delivery; and

Long term strategic 2D surveys are amortized on the basis of revenues according to the above area split and straight-line depreciation on a seven-year period from data delivery.

**Exclusive survey accounting (Proprietary/ Contract services)**

In exclusive surveys, the Company performs seismic services for a specific customer. The Company recognizes proprietary/contract revenue as the services are rendered. The Company evaluates the progress to date, in a manner generally consistent with the physical progress of the project, and recognizes revenue based on the ratio of the project cost incurred during that period to the total estimated project cost. The Company believes this ratio to be generally consistent with the physical progress of the project.

In some exclusive survey contracts and a limited number of multi-client survey contracts, the Company is required to meet certain milestones. The Company defers recognition of revenue on such contracts until all milestones that provide the customer a right of cancellation or refund of amounts paid have been met.

**Other geophysical services**

Revenue from the Company's other geophysical services is recognized as the services are performed.

**Equipment sales**

Revenues on equipment sales are recognized upon delivery to the customer. Any advance billings to customers are recorded in current liabilities.

**Software and hardware sales**

Revenues from the sale of software and hardware products are recognized following acceptance of the product by the customer at which time the Group has no further significant vendor obligations remaining. Any advance billings to customers are recorded in current liabilities.

Revenue is recognized when all of the following criteria are met:

the contract is signed;

delivery has occurred;

the fee is fixed or determinable; and

collectibility is probable.

If the software arrangement provides for multiple deliverables (e.g. upgrades or enhancements, post contract customer support such as maintenance, or services), the revenue is allocated to the various elements based on specific objective evidence of fair value, regardless of any separate allocations stated within the contract for each element. Each element is appropriately accounted for under the applicable accounting deliverable.

Maintenance revenues consist primarily of post contract customer support agreements and are recorded as advance billings to customers and recognized as revenue on a straight-line basis over the contract period.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Research and development**

Research and development costs are expensed as incurred.

**Government research grants**

For certain of its research projects carried out jointly with other companies, the Group receives financing from government organizations that provide such grants in order to encourage research activities in France. A portion of the grants (between 15% to 45%) is unconditionally repayable and is recorded as debt when received.

The balance is repayable through royalties on future sales only in the event the related research project proves to be successful.

This conditionally repayable portion of the research grant is recognized as a reduction of Research and development expenses net as the research expenditures are incurred. Any royalties due are recognized as cost of operations as the related sales are recognized.

**Other revenues (expenses)**

Operating results include other revenues and expenses, which comprise revenues and expenses not linked with current activity. It includes gains or losses on sales of assets and non-recurring revenues and expenses, such as gains or losses on partial sales of businesses, impairment of assets and restructuring costs. Unusual items such as lay-off indemnities, redundancy plans, and write-down or allowances on current assets related to unusual events are recorded in operating expenses.

**Cash equivalents**

Cash equivalents consist of marketable securities and short-term time deposits generally having original maturities of less than three months and are carried at the lower of cost or market value.

**Inventories and work-in-progress**

*Geophysical services*

Consumables and spare parts inventories are stated at the lower of cost or market value with cost determined on a standard cost basis deemed in US dollars and converted into euro by using a rolling 12 months exchange rate.

When the percentage of completion method is not applied, work-in-progress is stated at the lower of cost or realizable value and includes all direct costs incurred in acquiring and processing data for non-completed exclusive surveys.

*Products*

Raw materials and spare parts are stated at the lower of cost or market value with cost determined on a weighted average basis.

Products in progress and finished products are stated at the lower of cost or realizable value and include all direct and indirect costs incurred in manufacturing equipment. General and administrative expenses and research and development costs are not included in inventory.

**Property, plant and equipment**

Property, plant and equipment are stated at cost and include assets acquired under capital lease arrangements.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The Group can receive from the French Government non-repayable equipment subsidies which are recorded as a reduction to the cost of the equipment when received and recognized in income as a reduction of depreciation expense over the estimated useful lives of the equipment subsidized.

Property, plant and equipment are depreciated on a straight-line basis over the estimated useful lives of the assets, which are as follows:

Buildings	20 years
Machinery, equipment and vehicles	3 to 5 years
Seismic vessels	12 to 20 years
Office furniture and fixtures	6 to 10 years
Computer hardware and software	3 to 5 years

Repairs, maintenance and renewal costs, which do not materially improve the useful life of an asset, are expensed as incurred.

Upon sale or other disposition, the applicable amounts of asset cost and accumulated depreciation are removed from the accounts and the net amount, less proceeds from disposal, is charged or credited to income in other revenues and expenses.

Inter-company gains on sales of assets and equipment sales made by the geophysical products segment to the geophysical services segment, as well as the related effect on depreciation expense, are eliminated in consolidation.

**Goodwill and intangible assets**

Goodwill, representing the excess of the purchase price over the fair value of net assets of businesses acquired, is amortized on a straight-line basis over the estimated future periods of benefit, which is five years for software and technology activities and from ten to twenty years depending on the other type of businesses acquired.

The difference between the cost of equity method investments and the amount of underlying equity acquired in the net assets of the investee is classified in investments in companies under the equity method.

Multi-clients surveys represent the major item of intangible assets (see above).

Intangible assets also include contractual rights, development costs, patents and trademarks. The value of most of those intangible assets is assessed when the purchase accounting of an acquired company is realized upon generally agreed methods, based on revenues, costs or market value.

Contractual rights, development costs, patents and trademarks are amortized on a straight-line basis over their estimated useful lives.

**Impairment of long-lived assets**

Long-lived assets, goodwill and other identifiable intangible assets are written down when, as a result of events or changes in circumstances within the year, their recoverable value appears to have declined on an other than temporary basis to an amount less than their carrying value.

Impairment is determined for each group of autonomous assets by comparing their carrying value with the undiscounted cash flows that they are expected to generate based upon management's expectations of future economic and operating conditions.

Should the above comparison indicate that an asset is impaired, the write-down recognized is equivalent to the difference between carrying value and either market value or the sum of discounted future cash flows.



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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Unconsolidated investments**

Unconsolidated investments are recorded in Long term receivable and other investments at acquisition cost, less provisions to reduce them to fair value.

**Income taxes**

Deferred taxes are calculated on tax losses carried forward and on temporary differences arising between the net assets of consolidated companies and the amount resulting from the application of tax regulations. These amounts are recorded under the liability method based on the tax rates in effect when the temporary differences will reverse. Deferred tax assets are recorded when realization is probable.

Tax credits and other allowances are credited to current income tax expense.

**Pension plans and other post-retirement benefits**

The Group maintains pension plans in various countries as prescribed by local laws and customs. Contributions, based on salaries, are made to the national organizations responsible for the payment of pensions.

In France, legislation requires that lump sum retirement indemnities be paid to employees based upon their years of service and compensation at retirement. The actuarial liability of this unfunded obligation is included in other long-term liabilities.

For all other defined benefit plans, the actuarial cost of commitments is expensed each year during the employee's service life.

The Group has no significant commitments to provide other post-retirement benefits such as medical costs or life insurance to employees.

**Contingencies**

An estimated loss from a contingency is charged to income if it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. Disclosure is made for loss contingencies not meeting both these conditions if there is a reasonable possibility that a loss may be incurred. In particular, the Group records provisions for future reasonably foreseeable losses on contracts in progress.

Insurance recoveries are recorded when amounts are received or when it is highly probable that they will be received.

**Financial instruments**

The Group may enter into forward foreign currency exchange contracts to limit its exposure to currency fluctuations when firm contract commitments exist for net cash flows (contract revenues less costs) to be received in foreign currencies (primarily U.S. dollars). A forward foreign exchange contract obligates the Group to exchange predetermined amounts of specified foreign currencies at specified exchange rates on specified dates or to make an equivalent Euro payment equal to the value of such exchange.

Unrealized gains and losses resulting from changes in forward rates of instruments hedging recognized assets and liabilities are recognized in earnings in the period of change together with the offsetting gain or loss on the hedged item. Changes in the fair value of instruments hedging future commitments are deferred and recognized in earnings on the projected date of the forecasted transaction. If the amounts and maturity dates of forward contracts do not correspond to foreign currency cash flows generated by the backlog, the forward contracts are not qualified as hedges. Accordingly, unrealized gains and losses resulting from changes in forward rates of these contracts are recorded in earnings. Unrealized gains and losses reflected in income are included

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

respectively in other current assets and other liabilities in the consolidated balance sheet using the accrual method.

The Group also purchases interest rate cap agreements that are designed to limit its exposure to increasing interest rates and are designated as hedges of its long-term debt portfolio. An interest rate cap entitles the Group to receive a payment from the counter-party equal to the excess, if any, of the hypothetical interest expense (strike price) on a specified notional amount at a current market interest rate over an amount specified in the agreement. The only amount the Group is obligated to pay to the counterparty is an initial premium. The strike price of these agreements exceeds the current market levels at the time they are entered into. The interest rate indices specified by the agreements have been and are expected to be highly correlated with the interest rates the Group incurs on its long-term debt portfolio. Payments to be received as a result of the specified interest rate index exceeding the strike price are accrued in other assets and are recognized as a reduction of interest expense (the accrual accounting method). The cost of these agreements is included in other assets and amortized to interest expense on weighted average during the life of the agreement.

The Group does not enter into forward foreign currency exchange contracts or interest rate cap agreements for trading purposes nor does it use any other types of derivative financial instruments.

**Earnings per share**

Basic earnings per share is calculated by dividing net income (loss) by the weighted average number of the Company's shares outstanding during the period.

Diluted earnings per share is calculated by dividing net income by the weighted average number of shares including the effect of dilutive securities (stock options) and of subordinated bonds convertible into new ordinary shares or redeemable in new shares and/or existing shares and/or in cash.

**NOTE 2 ACQUISITIONS AND DIVESTITURES**

All acquisitions have been accounted for using the purchase method.

For all other non-recurring items, see Note 17.

**For the year ended December 31, 2004**

On January 2, 2004, Sercel acquired the seismic equipment business of Thales Underwater Systems Pty Ltd (TUS). This business includes the development and manufacturing of surface marine seismic acquisition systems, particularly solid streamers, and seabed marine seismic acquisition systems. The transaction was achieved with an immediate payment of 21.7 million subject to a possible price adjustment which may entail an additional payment in 2005 and/or 2006 based on revenues. The reassessment of TUS's assets led to the recognition of contractual rights by 11.9 million and of development costs by 8.9 million. As a result of this reassessment, the final goodwill amounted to 8.2 million.

On January 8, 2004, Sercel acquired a 51% majority ownership in Hebei JunFeng Geophysical Co. Ltd., a provider of geophones and seismic cables for the Chinese seismic market. Hebei JunFeng Geophysical Co. Ltd., located in the Hebei province, was originally created by BGP, the largest Chinese geophysical services contractor. The consideration for the transaction was 9.8 million and generated goodwill of 0.5 million. BGP will remain shareholder of the company along with the management, the employees and XPEIC, a Chinese geophysical equipment company.

On February 19, 2004, Sercel acquired Orca Instrumentation, a French company that develops and markets marine acquisition systems and underwater data transmission systems. Orca Instrumentation employs 15 people. The consideration for the transaction amounted to 1.3 million. As a result of the reassessment of Orca's assets, which led to the recognition of development costs by 0.6 million, the final goodwill amounted to 0.2 million.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

On March 3, 2004, Sercel completed the acquisition of Createch Industrie, a French company specialized in borehole measurement tools, borehole seismic tools and permanent borehole sensors. The company is headquartered in the Paris area and employed 19 people. The consideration for the transaction amounted to 1.9 million. The reassessment of Createch's assets resulted in the recognition of contractual rights of 0.4 million and of development costs of 1.5 million and the final goodwill amounted to 0.6 million.

On September 23, 2004, the liquidation of Kantwell Overseas Shipping Co, which had owned the seismic vessel the *CGG Mistral* (which sank in December 2002), was completed. A foreign exchange loss of 3.8 million was recorded under the item Exchange gains (losses)-net.

In October and November 2004, CGG sold 467,753 shares of the Norwegian company Petroleum Geo Services (PGS) for 17.2 million; the gain was 7.9 million before and after tax and was booked as Other Revenues and Expenses.

**For the year ended December 31, 2003**

On October 15, 2003, Sercel acquired Soderia S.A, which specialized in air guns for marine activities, for U.S.\$4.7 million (4.2 million) generating 2.4 million of goodwill to be amortized over 5 years. After the reassessment of Soderia's assets, which led to the recognition of contractual rights of 0.8 million and of development costs of 1.5 million, no goodwill remained at December 31, 2004. Soderia S.A. merged with Sercel on January 9, 2004.

As part of the financial restructuring plan presented on June 18, 2003 at Petroleum Geo Services ASA's annual shareholders meeting, CGG paid approximately 9.9 million for 867,753 shares of PGS, representing 4.3% of the PGS's restructured equity. Beginning December 2003, CGG sold 400,000 shares of PGS on the market, reducing its ownership to 2.3%. The sale price amounted to 7.9 million and the gain was 2.5 million before tax.

**For the year ended December 31, 2002**

On May 21, 2002, Talamantes B.V., a Dutch company and Paradigm Geophysical Ltd (PGEO) entered into an Agreement of Merger (the Merger Agreement) providing for the merger of PGEO into Talamantes or one of its subsidiaries (the Merger). Pursuant to the Merger Agreement, all PGEO outstanding ordinary shares were to be converted into the right to receive U.S.\$5.15 in cash each (the Merger Consideration), without interest thereon. In consideration of the execution of the Merger Agreement by PGEO, CGG entered into a voting agreement, dated as of May 21, 2002, with Talamantes, by which CGG agreed to vote in favor of the Merger.

The Merger was completed on August 13, 2002 and the shares CGG held in PGEO were therefore converted into the right to receive the Merger Consideration payable upon surrender of the relevant share certificate. The Group received a total of U.S.\$7.7 million in Merger Consideration. A 2 million loss was recorded under the item Other Revenues and Expenses.

On July 4, 2002, the Group acquired a 30% stake in the share capital of CGG Asia-Pacific (formerly Teknosif Sdn Bhd) with a value of 405,000 Malaysian Ringgit (108,000). CGG AP is engaged in data processing activities and is incorporated in Malaysia. This transaction did not generate any material goodwill.

In September 2002, the Group acquired 7,757,400 shares of PGS for approximately 7.3 million, representing a 7.51% stake.

On December 27, 2002, the Group sold its borehole seismic activity to Baker Atlas, a division of Baker Hughes for U.S.\$12 million (11.4 million) cash and agreed to form a joint venture for the processing and interpretation of borehole seismic data, which was incorporated in February 2003 and in which CGG owns 49%. An 8.4 million gain was recorded under the item Other revenues and expenses.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**NOTE 3 TRADE ACCOUNTS AND NOTES RECEIVABLE**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Trade accounts and notes receivable	191.5	148.7	178.0
Recoverable costs and accrued profit not billed	17.7	25.3	27.2
Less: allowance for doubtful accounts	(4.4)	(3.9)	(7.0)
<b>Subtotal</b>	<b>204.8</b>	<b>170.1</b>	<b>198.2</b>
Less: long-term portion included in long-term receivables	(13.1)	(4.6)	(5.9)
<b>Trade accounts and notes receivable net</b>	<b>191.7</b>	<b>165.5</b>	<b>192.3</b>

In the geophysical services segment, customers are generally large, national or international oil and gas companies, which management believes reduces potential credit risk. In the geophysical products segment, a significant portion of sales is paid by irrevocable letters of credit.

The Group maintains an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information. Credit losses have not been material for the periods presented and have consistently been within management's expectations.

Recoverable costs and accrued profit not billed comprise amounts of revenue recognized under the percentage of completion method on contracts for which billings had not been presented to the contract owners because the amounts were not billable at the balance sheet date. Such unbilled accounts receivable are generally billable over the 30 or 60 days following the project commencement.

The payment conditions of a net receivable related to a land seismic acquisition contract amounting, as of December 31, 2003, to U.S.\$28.9 million were the subject of negotiations in the first half of 2004. An agreement was reached on a repayment schedule. The outstanding receivable amounted to U.S.\$20.3 million as of December 31, 2004.

The long-term receivables as of December 31, 2004 amounted to 9.6 million for the geophysical services segment and to 3.5 million for the geophysical products segment. The long-term receivables as of December 31, 2003 and 2002 were mainly related to contracts included in the geophysical products segment.

**NOTE 4 INVENTORIES AND WORK IN PROGRESS**

	<b>December 31</b>				
	<b>2004</b>		<b>2003</b>		<b>2002</b>
	<b>Cost</b>	<b>Valuation Allowance</b>	<b>Net</b>	<b>Net</b>	<b>Net</b>
	<b>(in millions of euros)</b>				
<i>Geophysical services</i>					
Consumables and spare parts	18.6	(1.0)	17.6	17.9	20.2

<i>Geophysical products</i>					
Raw materials and spare parts	27.4	(6.1)	21.3	15.2	15.7
Work in progress	34.9	(4.6)	30.3	24.3	21.5
Finished goods	16.0	(3.8)	12.2	6.6	7.8
<b>Inventories and work in progress</b>	<b>96.9</b>	<b>(15.5)</b>	<b>81.4</b>	<b>64.0</b>	<b>65.2</b>

Inventories and work-in-progress are presented net of valuation allowances which amounted to 15.5 million at December 31, 2004, 22.7 million at December 31, 2003 and 30.4 million at December 31, 2002.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**NOTE 5 OTHER CURRENT ASSETS**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Value added tax, government grants and other receivables	24.2 <sup>(a)</sup>	31.5 <sup>(a)</sup>	94.9 <sup>(a)</sup>
Prepaid rent, vessel charters and other expenses	7.2	7.5	8.2
Prepaid income tax	4.0	3.5	5.9
Deferred tax assets	3.6	3.3	4.3
Prepaid expenses	7.4	5.3	7.6
Supplier prepayments	8.2	3.6	4.7
Unrealized exchange gains on forward contracts	3.7	3.1	5.3
<b>Other current assets</b>	<b>58.3</b>	<b>57.9</b>	<b>130.9</b>

(a) Including 7.2 million at December 31, 2004, 16.6 million at December 31, 2003 and 62.3 million at December 31, 2002 related to insurance indemnities to be received in respect of the CGG Mistral .

**NOTE 6 LONG TERM RECEIVABLE & OTHER INVESTMENTS INVESTMENTS IN AND ADVANCES  
TO COMPANIES ACCOUNTED FOR USING THE EQUITY METHOD**

**Long term receivable & other investments**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Long term receivable (Note 3)	13.1	4.6	5.9
Other financial investments			
Unconsolidated investments	2.3	11.7	4.2
Other	16.5	25.2	6.7
<b>Total</b>	<b>31.9</b>	<b>41.5</b>	<b>16.8</b>

Unconsolidated investments included in Long term receivable and other investments are presented as follows as of December 31, 2004 :

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Group interest > 50%	0.1	0.1	0.1
Group interest between 20% and 50%			

Group interest < 20%	3.4	12.2	8.8
<b>Gross</b>	3.5	12.3	8.9
Allowance	(1.2)	(0.6)	(4.7)
<b>Net book value</b>	2.3	11.7	4.2

The above-mentioned less than 20% category included principally in 2004 our 12.45% stake in Tronic s Microsystems SA, with a 2.6 million net book value.

The above-mentioned less than 20% category included principally in 2003 our 2.3% stake in post-restructured PGS for an amount of 9.3 million, which was sold in 2004 for 17.2 million.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Investments accounted for using the equity method**

	December 31		
	2004	2003	2002
	(in millions of euros)		
Balance at beginning of year	33.0	36.8	51.4
Investments made during the year			
Net variation in advances and loans to equity investees	(0.6)		1.4
Equity in income including amortization of goodwill <sup>(a)</sup>	10.3	6.5	6.4
Dividends received during the year, reduction in share capital	(4.8)	(5.2)	(3.5)
Changes in exchange rates	(2.2)	(4.5)	(8.5)
Other <sup>(b)</sup>	0.9	(0.6)	(10.6)
<b>Balance at end of year</b>	<b>36.6</b>	<b>33.0</b>	<b>36.8</b>

(a) Includes goodwill amortization related to Paradigm stock of 0.8 in 2002.

(b) Relates primarily to divestiture (sale of Paradigm stock in 2002) and valuation allowances recorded against receivables from affiliates with a negative net worth.

Investments in and advances to companies under the equity method are comprised of:

	2004	2003	2002
	(in millions of euros)		
Argas	23.7	19.3	20.5
Geomar	5.6	5.6	5.6
JV XPEIC/ Sercel Limited	2.2	2.4	3.3
Other <sup>(a)</sup>	5.1	5.7	7.4
<b>Investments in companies under the equity method</b>	<b>36.6</b>	<b>33.0</b>	<b>36.8</b>

(a) Includes loans and advances to companies accounted for under the equity method at December 31, 2004, 2003, 2002 for 5.8 million, 6.3 million and 7.4 million, respectively.

The net contribution to equity of affiliates accounted for under the equity method is as follows:

	2004	2003	2002
	(in millions of euros)		
Argas	19.4	14.9	16.1
Zhong Hai			



JV XPEIC/ Sercel Limited	0.6	0.8	1.7
VS Fusion	(0.7)	(0.4)	
<b>Total</b>	<b>19.3</b>	<b>15.3</b>	<b>17.8</b>

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The key figures relating to Argas' s financial statements are as follows:

	2004	2003	2002
	(in millions of euros)		
Current assets	41.9	35.5	44.1
Fixed assets	23.7	36.8	59.1
Current liabilities	5.7	13.9	28.2
Non current liabilities	2.6	9.6	25.1
Gross revenue	70.0	72.7	86.5
Operating profit	21.6	20.6	23.2
Income from continuing operations before extraordinary items and cumulative effect of change in accounting principle	21.3	17.4	19.7
<b>Net income</b>	21.3	17.4	19.7

**NOTE 7 PROPERTY, PLANT AND EQUIPMENT, NET**

	December 31						
	2004			2003			2002
	Cost	Acc. Dep.	Net	Cost	Acc. Dep.	Net	Net
	(in millions of euros)						
Land	4.4	(0.2)	4.2	4.7	(0.2)	4.5	4.8
Buildings	53.1	(32.4)	20.7	51.4	(33.2)	18.2	19.2
Machinery and equipment	339.7	(259.3)	80.4	419.9	(330.5)	89.4	102.0
Vehicles and vessels	159.2	(79.0)	80.2	177.4	(93.5)	83.9	114.0
Office furniture and fixtures	33.1	(23.6)	9.5	32.5	(22.6)	9.9	11.5
Computer hardware & software	24.8	(17.4)	7.4	23.3	(14.4)	8.9	9.4
Assets under construction	2.1		2.1	1.2		1.2	4.1
<b>Total</b>	616.4	(411.9)	204.5	710.5	(494.4)	216.0	265.0

Included above are land, buildings and geophysical equipment recorded under capital leases as follows:

	December 31						
	2004			2003			2002
	Cost	Acc. Dep.	Net	Cost	Acc. Dep.	Net	Net

(in millions of euros)

Land and buildings	5.9	(5.3)	0.6	5.9	(5.3)	0.6	0.7
Geophysical equipment	31.4	(22.6)	8.8	27.4	(16.7)	10.7	12.4
<b>Total</b>	<b>37.3</b>	<b>(27.9)</b>	<b>9.4</b>	<b>33.3</b>	<b>(22.0)</b>	<b>11.3</b>	<b>13.1</b>

In 2004 the seismic vessels Föhn and Harmattan and one chase boat were included in purchases of assets recorded under capital leases for a total amount of 8.7 million.

Depreciation of assets recorded under capital leases is determined on the same basis as assets owned and is included in depreciation expense.

Included in assets recorded under capital leases are land and buildings of one of the Group's French offices in Massy, which were sold under a sale and leaseback agreement in 1990. The assets are maintained at their original cost and the buildings continue to be depreciated over their initial estimated useful lives.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Repairs and maintenance expenses**

Included in cost of operations was an amount of 18.3 million in 2004, 16.8 million in 2003 and 19.7 million in 2002 representing repairs and maintenance expense.

**NOTE 8 GOODWILL AND INTANGIBLE ASSETS, NET**

	December 31		
	2004	2003	2002
	(in millions of euros)		
Goodwill of consolidated subsidiaries	84.9	81.7	90.4
Less: accumulated amortization	(28.2)	(23.5)	(18.7)
<b>Goodwill net</b>	<b>56.7</b>	<b>58.2</b>	<b>71.7</b>
Multi-client surveys	510.9	477.2	429.0
Less: accumulated amortization	(386.3)	(332.2)	(301.9)
<b>Multi-client surveys net</b>	<b>124.6</b>	<b>145.0</b>	<b>127.1</b>
Patents, trademarks and other intangible assets	29.8	4.8	5.7
Less: accumulated amortization	(6.7)	(2.9)	(3.4)
<b>Other intangible assets net</b>	<b>23.1</b>	<b>1.9</b>	<b>2.3</b>
<b>Total Goodwill and Intangible assets net</b>	<b>204.4</b>	<b>205.1</b>	<b>201.1</b>

Amortization of goodwill amounted to 7.7 million in 2003 including a 1.6 million write-down related to the exceptional goodwill depreciation of Compañía Mexicana de Geofísica ( CMG ) corresponding to the Land restructuring plan.

The different impairment tests performed in 2004 and 2003 did not result in the recording of any impairment at December 31 in either year.

In 2004, the main impairment tests were performed at the Product segment level (test of the goodwill net book value), at the Offshore SBU level (test of the historical multi-client library net book value and of the tangible assets net book value, which results notably from the 2001 Aker purchase accounting) and at the Land SBU level.

For each test, the discounted cash-flow valuation method was used at year-end with the following parameters:

expected cash-flows deemed on the basis of the average medium term exchange rate 1 equals U.S.\$1.25; and

discount ratios corresponding to the respective sector weighted average cost of capital (WACC):

8.1% for the Product segment;

7.5% for the multi-client library; and

7.7% for the whole Offshore SBU.

For the test of the Land SBU, the impairment test of the long-term assets was carried out by an expert through an assessment of the market value of these assets.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**NOTE 9 OTHER CURRENT LIABILITIES**

The analysis of other current liabilities is as follows:

	December 31		
	2004	2003	2002
	(in millions of euros)		
Provisions for restructuring costs	1.0	12.1	0.8
Provisions for contract losses and litigation	10.0	4.2	5.4
Deferred income	4.0	6.3	8.9
Value added tax and other taxes payable	7.7	9.0	10.0
Unrealized exchange losses on forward contracts	0.2	0.2	
Deferred tax expense (short term)	0.8	0.5	0.7
Other liabilities <sup>(a)</sup>	17.3	12.5	12.5
<b>Other current liabilities</b>	<b>41.0</b>	<b>44.8</b>	<b>38.3</b>

(a) Includes the short term part of the provisions for liabilities and charges of 3.2 million, 3.7 million and 5.9 million as of December 31, 2004, 2003 and 2002, respectively (see Note 25).

**NOTE 10 LONG TERM DEBT**

Analysis of long-term debt by type is as follows:

	December 31						
	2004			2003			2002
	Current	Long-term	Total	Current	Long-term	Total	Total
	(in millions of euros)						
Outstanding bonds	55.1	172.5	227.6		178.1	178.1	214.6
Bank loans	5.3	6.6	11.9	10.4	12.8	23.2	54.0
Capital lease obligations	9.8	15.0	24.8	11.6	16.9	28.5	35.8
<b>Sub-total</b>	<b>70.2</b>	<b>194.1</b>	<b>264.3</b>	<b>22.0</b>	<b>207.8</b>	<b>229.8</b>	<b>304.4</b>
Accrued interest	2.9			2.6			3.4
<b>Total</b>	<b>73.1</b>			<b>24.6</b>			<b>307.8</b>

**Outstanding Bonds**

On November 17, 2000, the Group issued U.S.\$170 million aggregate principal amount of 10% Senior Notes due 2007 in the international capital markets. The net proceeds (approximately U.S.\$164.9 million) was used to repay a

portion of outstanding indebtedness under the existing syndicated credit facility and to fund the cash portion of the purchase price of two marine seismic vessels and certain seismic data from an affiliate of Aker (U.S.\$25 million). A standard covenant package is attached to the bond, with a main incurrence test of coverage of interest expense by cash flow. The Group was in compliance with the bond covenants on the date of issue, and at year-end.

On February 5, 2002, the Company issued in addition to the bonds issued on November 2000, bonds in a total principal amount of U.S.\$55 million, with a maturity date in 2007 and with an annual fixed rate of 10<sup>5</sup>/<sub>8</sub>%.

On November 4, 2004 the Company issued 14,000 subordinated bonds in favor of Onex Partners LP, Onex American Holdings II LLC, Onex US Principals LP and CGG Executive Invesco, LLC, with maturity of 2012, in

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

a total nominal amount of U.S.\$84,980,000, convertible into new ordinary shares or redeemable in new shares and/or existing shares and/or in cash (the Bonds), at an interest rate of 7.75%.

The Note d'opération was filed with the Autorité des Marchés Financiers under visa number 04-863 dated October 28, 2004 (hereinafter the Note d'opération). The issuance of the Bonds was realized on November 4, 2004.

The Bonds provide that the holders of the Bonds may be issued with a maximum of:

1,400,000 shares with a nominal value of \$2 each, corresponding to a maximum share capital increase of 2,800,000, resulting from the conversion of the Bonds and subject to the adjustments provided for in paragraph Adjustments of the Conversion Ratio in the event of financial transactions of the Note d'opération;

2,000,000 shares with a nominal value of \$2 each, corresponding to a maximum share capital increase of 4,000,000, resulting from the redemption of the Bonds by delivery of shares and subject to the adjustments provided for in case of a division in the share nominal value;

1,200,000 shares of a nominal value of \$2 each, corresponding to a maximum share capital increase of 2,400,000, with respect to the payment in shares, at the Company's option, of all or part of the interest due under the Bonds;  
or

an aggregate maximum issue of 4,599,900 shares with a nominal value of \$2 each, (i.e. 39.3% of the number of shares composing the share capital) resulting in a maximum share capital increase of 9,199,800.

The indenture of the Bonds states that, in case of fundamental change (shares or American depositary shares ceasing to be listed on the New York Stock Exchange, sale of a substantial part of the assets of the Company, liquidation or dissolution of the Company, change of control of the Company), any bondholder may require the Company to redeem its Bonds and to pay, in addition to the principal amount of the Bonds, an amount equal to the amount of basic interest at a rate of 7.75% that would have accrued on the Bonds until maturity for a maximum period of five years. This provision may trigger a payment by the Company of a maximum of U.S.\$33 million in additional interest. As of December 31, 2004, the Company has not recognized any cost related to this feature as its value cannot be reasonably determined.

The Board of Directors meeting on December 8, 2004 authorized the Company to partially redeem its 10<sup>5</sup>/<sub>8</sub>% Senior Notes, up to a principal amount of U.S.\$75 million. According to the indenture, such early redemption required the payment of a premium representing 5.3125% of the total redemption amount (U.S.\$4.0 million) plus accrued interest. The total cost of such redemption for the Company is therefore approximately U.S.\$79 million plus the accrued interest. The indenture of the convertible bonds states that the bondholders are entitled to cash payments equal to the amount of dividends paid to shareholders that would be received if the bonds were converted into common shares.

The redemption of U.S.\$75 million in principal amount of the Notes was realized on January 26, 2005. The premium and the unamortized portion of the deferred expenditures linked to this redemption were recognized in the profit and loss as Other expenses at December 31, 2004.

**Credit line**

On March 12, 2004, CGG, CGG Marine and Sercel signed a revolving credit facility agreement of U.S.\$60 million with banks and financial institutions acting as lenders. The purpose of this agreement was notably to replace the multi currency facility agreement dated September 15, 1999 as amended on August 31, 2000, which was cancelled.



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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

This credit facility agreement requires that the following ratios be respected:

- (a) the ratio of net debt over equity should not exceed 0.9;
- (b) the ratio of net debt over Adjusted EBITDA (ORBDA) should not exceed (i) 2.00 on the 12 months periods ending December 31, 2003, June 30, 2004 and December 31, 2004, (ii) 1.75 on the 12 months periods ending June 30, 2005 and December 31, 2005 and (iii) 1.50 on the following 12 months periods; and
- (c) the ratio of net debt (in USD at closing rate) over cash-flow from operations on a rolling 12 months period calculated at average rate of the period should not exceed (i) 4.00 on the 12 months periods ending December 31, 2003 and June 30, 2004, (ii) 3.75 on the 12 months periods ending December 31, 2004, (iii) 3.50 on the 12 months period ending June 30, 2005, (iv) 3.00 on the 12 months period ending December 31, 2005, and (v) 2.50 on the following 12 months periods.

The ratios calculated at December 31, 2004 met the conditions required.

The lenders were granted a lien on the accounts receivable of CGG, CGG Marine and Sercel S.A. The facility has a term of three years and will begin amortizing after March 11, 2006, one year from its final maturity.

At December 31, 2004 the Group had 10.2 million available in unused short-term credit lines and overdraft facilities and 44.0 million in unused long-term credit lines.

**Bank loans**

At December 31, 2004, 26.7 million of bank loans were secured by tangible assets and receivables.

Analysis of long-term debt (including amounts due within one year) by currency is as follows:

	December 31		
	2004	2003	2002
	(in millions of euros)		
Euro	18.7	28.7	39.9
U.S. dollar	243.6	193.9	259.9
Other currencies	2.0	7.2	4.6
<b>Total</b>	264.3	229.8	304.4

Analysis of long-term debt (including amounts due within one year) by interest rate is as follows:

	December 31		
	2004	2003	2002
	(in millions of euros)		
Variable rates (effective rate December 31, 2004: 2.76%; 2003: 9.02%; 2002: 4.87%)	15.6	23.9	21.3
Fixed rates (effective rate December 31, 2004: 9.61%; 2003: 10.02%; 2002: 9.47%)	248.7	205.9	283.1
<b>Total</b>	264.3	229.8	304.4

Variable interest rates generally are based on inter-bank offered rates of the related currency. The weighted average interest rate on bank overdrafts was 9.17%, 13.72%, and 10.95% at December 31, 2004, 2003 and 2002, respectively. The impact of hedging instruments has not been considered in the above two tables.

The annual maturities of long-term debt are set forth in Note 14.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**NOTE 11 OTHER LONG-TERM LIABILITIES**

Other long-term liabilities consist of the following:

	December 31		
	2004	2003	2002
	(in millions of euros)		
Government research grants	3.8	4.3	5.1
Retirement indemnity provisions	11.2	10.3	10.2
Employee profit sharing	12.8	10.7	8.7
Deferred income tax (long term)	7.5	3.8	12.0
Other liabilities <sup>(a)</sup>	4.8	3.0	5.1
<b>Other long-term liabilities</b>	<b>40.1</b>	<b>32.1</b>	<b>41.1</b>

(a) Includes the long-term part of the provisions for liabilities and charges of 1.6 million, 0.4 million and 1.8 million as of December 31, 2004, 2003 and 2002 respectively (see Note 25).

The Group records retirement indemnity provisions based on the following actuarial assumptions:  
historical staff turnover and standard mortality schedule;

age of retirement between 60 and 65 years old; and

actuarial rate and average rate of increase in future compensation.

The status of the retirement indemnity plans is as follows:

	December 31		
	2004	2003	2002
	(in millions of euros)		
Accumulated benefit obligation (unvested)	8.7	7.8	5.0
Projected benefit obligation	11.4	10.6	10.6
Fair value of plan assets			
Unrecognized loss arising from change in assumed discount rate	(0.2)	(0.3)	(0.4)
Accrued provision	11.2	10.3	10.2
Service cost	0.6	1.2	1.3
Interest expense	0.5	0.5	0.4
Amortization of loss arising from change in discount rate	(0.3)	0.1	0.1
Net pension cost	0.8	1.2	1.8
Benefit payments	(0.2)	(0.7)	(0.2)

Curtailement		1.0	
Consolidation scope entries & currency translation	0.3		
Net changes	0.9	0.1	1.6
Key assumptions used in estimating the Group's retirement obligations are:			
Discount rate	4.0%	5.0%	6.0%
Average rate of increase in future compensation	3.0%	3.0%	4.0%

A supplemental pension and retirement plan was implemented in December 2004 for members of the Group's Management Committee and members of the management board of Sercel Holding SA. The commitment related to the projected benefit obligation was 2.5 million as of December 31, 2004. Because this obligation was unvested as of December 31, 2004, we recorded no liability on our balance sheet.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**NOTE 12 COMMON STOCK AND STOCK OPTION PLANS**

The Company's share capital at December 31, 2004 consisted of 11,682,218 shares, each with a nominal value of 2.

**Issued Shares**

In 2004, CGG issued 1,500 fully paid shares related to stocks option exercised at a price of 15.82 for which the company received net proceeds of 23,730.

**Dividend rights**

Dividends may be distributed from the statutory retained earnings, subject to the requirements of French law and the Company's articles of incorporation. Retained earnings available for distribution totaled 6.9 million at December 31, 2004.

**Stock options**

Pursuant to various resolutions adopted by the Board of Directors, the Group has granted options to purchase Ordinary Shares to certain employees, executive officers and directors of the Group.

Pursuant to a resolution adopted by the Board of Directors, the Company instituted a new stock option plan on May 15, 2003. Options granted under this new plan, which expires eight years from the date of grant, are vested by one fourth each year beginning May 2003 and cannot be generally exercised before 2006; options to subscribe 1,000 shares or more cannot be exercised before May 15, 2007.

Twenty percent of options granted in 1997 can be exercised in every twelve month period and expire eight years from the date of grant. Options granted under the provisions of the 2000 option plan which expires eight years from the date of grant cannot be generally exercised before 2003 and the options to subscribe 1,000 shares or more cannot be exercised before January 18, 2005. Options granted under the provisions of the 2001 option plan, which expires eight years from the date of grant, are vested by one fifth each year from March 2001 and cannot be generally exercised before 2004 and the options to subscribe 1,000 shares or more cannot be exercised before January 18, 2005. The exercise price for each option is the average fair market value for the common stock during the 20 trading days ending on the trading day next preceding the date the option is granted. Options granted under the 2002 option plan, which expires eight years from the date of grant, are vested by one fifth each year from May 2002 and cannot be generally exercised before 2005; options to subscribe 1,000 shares or more cannot be exercised before May 15, 2006.

Information relating to options outstanding at December 31, 2004 is summarized below:

<b>Date of Board of Directors</b>	<b>Resolution</b>	<b>Options granted</b>	<b>Options outstanding at Dec. 31, 2004</b>	<b>Exercise price per share ( )</b>	<b>Expiration date</b>
May 5, 1997		100,000	56,662	61.0	May 4, 2005
January 18, 2000		231,000	213,250	49.9	January 17, 2008
March 14, 2001		256,000	240,900	71.2	March 13, 2009
May 15, 2002		138,100	131,500	43.5	May 14, 2010
May 15, 2003		169,900	166,738	15.8	May 14, 2011
		895,000	809,050		

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

A summary of the Company's stock option activity, and related information for the years ended December 31 follows:

	2004		2003		2002	
	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
Outstanding-beginning of year	815,673	48.86	648,335	57.55	532,381	61.27
Granted			169,900	15.82	138,100	43.47
Exercised	(1,500)	15.82				
Forfeited	(5,123)	44.39	(2,562)	49.47	(22,146)	59.11
Outstanding-end of year	809,050	48.95	815,673	48.86	648,335	57.55
Exercisable-end of year	56,662	61.03	57,523	61.03	58,135	61.03

**NOTE 13 FINANCIAL INSTRUMENTS****Foreign currency exposure management**

The reporting currency for the Group's consolidated financial statements is the Euro. However, as a result of having primarily customers that operate in the oil and gas industry, more than 90% of the Group's operating revenues are denominated in currencies other than the Euro, primarily the U.S. dollar.

As a result, the Group's sales and operating income are exposed to the effects of fluctuations in the value of the Euro versus the U.S. dollar. A strengthening of the Euro compared to the U.S. dollar has a negative effect on the Group's net sales and operating income denominated in U.S. dollars when translated to Euro, while a weakening of the Euro has a positive effect. In addition, the Group's exposure to fluctuations in the Euro/U.S. dollar exchange rate has considerably increased over the last few years due to increased sales outside of Europe.

In order to improve the balance of its net position of receivables and payables denominated in foreign currencies, the Group maintains a portion of its financing in U.S. dollars. At December 31, 2004, 2003 and 2002, the Group's long-term debt denominated in U.S. dollars amounted to U.S.\$331.8 million ( 243.6 million), U.S.\$244.9 million ( 193.9 million) and U.S.\$272.6 million ( 259.9 million), respectively. The Group also attempts to improve this balance by entering into forward exchange contracts.

In addition, to protect against the reduction in the value of future foreign currency cash flows, the Group follows a policy of selling U.S. dollars forward at average contract maturity dates that the Group attempts to match with future net U.S. dollar cash flows (revenues less costs in U.S. dollars) to be generated by firm contract commitments in its backlog generally over the ensuing six months. A similar policy, to a lesser extent, is carried out with respect to contracts denominated in British pounds. This foreign currency risk management strategy has enabled the Group to reduce, but not eliminate, the positive or negative effects of exchange movements with respect to these currencies.

Details of forward exchange contracts and of other foreign exchange hedging instruments are as follows:

	December 31		
	2004	2003	2002

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Notional amount (in millions of U.S.\$)	127.0	144.6	132.8
Weighted average maturity	96 days	80 days	94 days
Weighted average forward Euro/U.S.\$ exchange rate	1.2453	1.1472	0.9743
Unrealized exchange gains (in millions of Euros) <sup>(a)</sup>	8.7	11.6	9.7

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

- (a) 5.4 million of unrealized exchange gains was designated as a hedge of foreign currency commitments in 2004 and deferred to a future period. The equivalent amounts were a profit of 3.3 million and 5.2 million in 2003 and 2002, respectively.

**Interest rate risk management**

From 1996 until 2002, the Group maintained interest rate cap agreements to reduce the sensitivity to increases in interest rates of its interest expense on variable-rate debt.

The Group has not entered into any such agreements during 2003 or 2004 because of its relatively low amount of variable rate debt.

**Fair value of financial instruments**

The carrying amounts and fair values of the Group's financial instruments are as follows:

	2004		2003		2002	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	(in millions of euros)					
Cash and cash equivalents	130.8	130.8	96.4	96.4	116.6	116.6
Bank overdraft facilities	2.8	2.8	3.1	3.1	10.5	10.5
Bank loans, vendor equipment financing and shareholder loans:						
Variable rate	15.6	15.6	23.9	23.9	21.3	21.3
Fixed rate	248.7	254.8	205.9	218.7	283.1	320.3
Foreign currency exchange contracts	8.7	8.6	11.6	11.3	9.7	9.2

The Group considers the carrying value for loans receivable and other investments, trade accounts and notes receivable, other receivables, trade accounts and notes payable and other current liabilities to be the most representative estimate of fair value.

For bank loans with fixed interest rates, the fair values have been estimated using discounted cash flow analyses based on the Group's incremental borrowing rates for similar types of borrowing arrangements. For variable-rate bank loans, vendor equipment financing and the shareholder loans, fair values approximate carrying values.

The fair values of foreign currency exchange contracts are estimated based on current forward exchange rates for contracts with comparable maturities.

**NOTE 14 CONTRACTUAL OBLIGATIONS, COMMITMENTS AND CONTINGENCIES****Contractual obligations**

The Group leases primarily land, buildings and geophysical equipment under capital lease agreements expiring at various dates during the next five years. These capital lease commitments include the sale-leaseback agreement with respect to the Group's head office in Massy.

The Group also operates seismic vessels under long-term charter agreements with ship-owners that expire at various dates over the next six to 60 months. Since April 1999, the Group has been operating the seismic vessel *Alizé* under a long-term charter agreement, signed on December 31, 1998, valid for a period of eight years.

In 2004, the Group accounted two seismic vessels ( *Föhn* and *Harmattan* ) and one chase boat as purchases of assets under capital leases for a total amount of 8.7 million.



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Other lease agreements relate primarily to operating leases for offices, computer equipment and other items of personal property.

Rental expense was 61.2 million in 2004, 78.2 million in 2003 and 83.9 million in 2002.

The following table presents payments in future periods relating to contractual obligations as of December 31, 2004:

	<b>Payments due by period</b>				<b>Total</b>
	<b>Less than 1 year</b>	<b>1-3 years</b>	<b>4-5 years</b>	<b>After 5 years</b>	
	<b>(in million of euros)</b>				
Long-term debt (Note 10)	60.4	114.7	0.9	63.5	239.5
Capital Lease Obligations	9.8	16.6	0.3		26.7 <sup>(a)</sup>
Operating Leases	43.8	42.4	2.6	0.6	89.4
Other Long-term Obligations (bond interest)	20.4	33.1	9.7	14.7	77.9
<b>Total Contractual Obligations</b>	<b>134.4</b>	<b>206.8</b>	<b>13.5</b>	<b>78.8</b>	<b>433.5</b>

(a) Includes 1.9 million related to interest.

**Other commitments**

Outstanding commitments at December 31, 2004 include the following:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Guarantees issued in favor of clients <sup>(a)</sup>	83.0	82.0	57.2
Guarantees issued in favor of banks	13.7	8.7	3.5
Notes receivable discounted			
Other guarantees <sup>(b)</sup>	13.3	14.2	16.5
<b>Total</b>	<b>110.0</b>	<b>104.9</b>	<b>77.2</b>

(a) Guarantees issued in favor of clients relate primarily to performance bonds, direct guarantees given for bids at the bidder level and parent guarantees given for subsidiaries bids.

(b) Other guarantees relate primarily to guarantees issued by the Company on behalf of subsidiaries and affiliated companies in favor of customs or other governmental administrations.

The increase of guarantees issued in favor of clients relates mainly to the increase of guarantees issued by the Company to support bids made at the subsidiaries level.

Other guarantees represent essentially the guarantees given to the Libyan customs authorities for the temporary admission of our seismic vessels in Libyan waters.

There are no significant commitments for capital expenditures at December 31, 2004.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The duration of the guarantees is as follows:

	Due date				Total
	Less than 1 year	1-3 years	4-5 years	After 5 years	
	(in millions of euros)				
Guarantees issued in favor of clients	79.4	3.6			83.0
Guarantees issued in favor of banks	9.9	3.3	0.5		13.7
Other guarantees	11.7	0.8	0.8		13.3
<b>Total</b>	101.0	7.7	1.3		110.0

In addition, the Group's agreements for the sale of businesses contain customary, reciprocal warranties and indemnities.

A supplemental pension and retirement plan was implemented in December 2004 for members of the Group's Management Committee and members of the management board of Sercel Holding SA. The commitment related to the Projected Benefit Obligation was 2.5 million as of December 31, 2004. This obligation was unvested as of December 31, 2004, resulting in no liability being recorded.

The Group has no off-balance sheet obligations under French GAAP that are not described above.

**Legal proceedings, claims and other contingencies**

The Group is a defendant in a number of legal proceedings arising in the ordinary course of business and has various unresolved claims pending. The outcome of these lawsuits and claims is not known at this time. The Group believes that the resulting liability, if any, net of amounts recoverable from insurance or other sources, will not have a material adverse effect on its consolidated results of operations, financial position, or cash flows.

The Company has been sued by Parexpro (Portugal), for termination without cause of employment agreements and solicitation of a significant number of highly qualified staff in the field of reservoir evaluation, misappropriation of confidential information, documentation and clients, and loss of profits resulting therefrom. The Company does not expect this claim to have any material impact on the Group's results of operation, financial position, or cash flows.

**NOTE 15 ANALYSIS BY OPERATING SEGMENT AND GEOGRAPHIC ZONE**

The following tables present revenues, operating income and identifiable assets by operating segment, revenues by geographic zone (by origin) as well as net sales by geographic zone based on the location of the customer. The Group principally services the oil and gas exploration and production industry and currently operates in two industry segments:

Geophysical services, which consist of (i) land seismic acquisition, (ii) marine seismic acquisition, (iii) other geophysical acquisition, including activities not exclusively linked to oilfield services, and (iv) data processing, and data management;

Geophysical products, which consist of the manufacture and sale of equipment involved in seismic data acquisition, such as recording and transmission equipment and vibrators for use in land seismic acquisition, and software development and sales.

Inter-company sales between the two segments are made at prices approximating market prices and relate primarily to equipment sales made by the geophysical products segment to the geophysical services segment. These

inter-segment sales, the related operating income recognized by the geophysical products segment, and the related effect on capital expenditures and depreciation expense of the geophysical services segment are

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

eliminated in consolidation and presented in the column Eliminations and Adjustments in the tables that follow.

Operating income represents operating revenues and other operating income less expenses of the relevant industry segment. It includes non-recurring and unusual items, which are disclosed in the operating segment if material. General corporate expenses, which include Group management, financing, and legal activities, have been included in the column Eliminations and Adjustments in the tables that follow. The Group does not disclose financial expenses or revenues by operating segment because these items are not followed by the segment management and because financing and investment are mainly managed at the corporate level.

Identifiable assets are those used in the operations of each industry segment and geographic zone. Unallocated and corporate assets consist primarily of financial assets, including cash and cash equivalents, and the Group's corporate headquarters in Massy.

Net sales originating in France include export sales of approximately 231 million in 2004, 191 million in 2003 and 179 million in 2002.

In 2004, the Group's two most significant customers accounted for 6.7% and 6.1% of the Group's consolidated revenues compared with 14.7% and 8.5% in 2003 and 7.6% and 7.1% in 2002.

**Analysis by operating segment**

<b>2004</b>	<b>Geophysical services</b>	<b>Geophysical products</b>	<b>Eliminations and Adjustments</b>	<b>Consolidated Total</b>
<b>(in millions of euros)</b>				
<b>Revenues from unaffiliated customers</b>	393.3	299.4		692.7
Inter-segment revenues	1.9	14.2	(16.1)	
<b>Operating revenues</b>	395.2	313.6	(16.1)	692.7
<b>Operating income (loss)</b>	(18.8) <sup>(a)</sup>	57.3	(2.8) <sup>(b)</sup>	35.7
Equity income (loss) of investees	10.0	0.3		10.3
Capital expenditures <sup>(c)</sup>	(94.1)	(11.4)	2.9	(102.6) <sup>(d)</sup>
Depreciation and amortization <sup>(c)</sup>	122.2	20.7	(5.0)	137.9
Corporate assets amortization				
Investments in companies under equity method				
<b>Identifiable assets</b>	519.3	299.5	(48.9)	769.9
Unallocated and corporate assets				169.7
<b>Total assets</b>				939.6

(a)

Includes non recurring revenues net of expenses, assets provisions or write-downs, and restructuring costs for geophysical services of 3.3 million

(b) Includes general corporate expenses of 14.2 million and non-recurring expenses of 2.9 million

(c) Includes investments in and amortization of multi-client surveys of 51.1 million and 66.5 million, respectively

(d) Includes equipment acquired under capital leases of 8.7 million

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

2003	Geophysical services	Geophysical products	Eliminations and Adjustments	Consolidated Total
(in millions of euros)				
<b>Revenues from unaffiliated customers</b>	413.2	199.2		612.4
Inter-segment revenues	1.2	17.7	(18.9)	
<b>Operating revenues</b>	414.4	216.9	(18.9)	612.4
<b>Operating income (loss)</b>	(29.8) <sup>(a)</sup>	42.9	(2.5) <sup>(b)</sup>	10.6
Equity income (loss) of investees	6.4	0.1		6.5
Capital expenditures <sup>(c)</sup>	(146.4)	(10.0)	2.4	(154.0) <sup>(d)</sup>
Depreciation and amortization <sup>(c)</sup>	144.9	6.9	(6.7)	145.1
Corporate assets amortization			0.1	0.1
Investments in companies under equity method	(0.6)			(0.6)
<b>Identifiable assets</b>	570.3	188.6	(20.3)	738.6
Unallocated and corporate assets				140.8
<b>Total assets</b>				879.4

(a) Includes non recurring expenses, assets provisions or write-downs, and restructuring costs for geophysical services of 11.1 million

(b) Includes general corporate expenses of 11.4 million

(c) Includes investments in and amortization of multi-client surveys of 109.7 and 80.0 million, respectively

(d) Includes equipment acquired under capital leases of 8.1 million

2002	Geophysical services	Geophysical products	Eliminations and Adjustments	Consolidated Total
(in millions of euros)				
<b>Revenues from unaffiliated customers</b>	507.6	193.1		700.7

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Inter-segment revenues	0.8	69.3	(70.1)	
<b>Operating revenues</b>	<b>508.4</b>	<b>262.4</b>	<b>(70.1)</b>	<b>700.7</b>
<b>Operating income (loss)</b>	<b>27.4<sup>(a)</sup></b>	<b>51.2<sup>(a)</sup></b>	<b>(17.0)<sup>(b)</sup></b>	<b>61.6</b>
Equity income (loss) of investees	7.4	(1.0)		6.4
Capital expenditures <sup>(c)</sup>	(261.0)	(11.3)	11.5	(260.8) <sup>(d)</sup>
Depreciation and amortization <sup>(c)</sup>	215.6	12.5	(6.3)	221.8
Corporate assets amortization			0.1	0.1
Investments in companies under equity method	(1.2)			(1.2)
<b>Identifiable assets</b>	<b>686.8</b>	<b>202.3</b>	<b>(21.9)</b>	<b>867.2</b>
Unallocated and corporate assets				157.5
<b>Total assets</b>				<b>1,024.7</b>

(a) Includes non-recurring expenses and assets provisions or write-downs respectively in geophysical services and geophysical products segments of 8.6 million and (1.5) million, respectively

(b) Includes general corporate expenses of 13.2 million

(c) Includes investments in and amortization of multi-client surveys for respectively 130.1 and 87.0 million, respectively

(d) Includes equipment acquired under capital leases of 8.6 million

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Analysis by geographic zone**

*Analysis of operating revenues by location of customers*

	2004		2003		2002	
	(in millions of euros)					
France	14.1	2%	10.9	2%	6.3	1%
Rest of Europe and CIS	124.1	18%	75.4	12%	110.2	16%
Asia-Pacific/ Middle East	279.8	40%	187.5	31%	181.3	26%
Africa	67.0	10%	105.0	17%	113.9	16%
Americas	207.7	30%	233.6	38%	289.0	41%
<b>Consolidated total</b>	692.7	100%	612.4	100%	700.7	100%

*Analysis of operating revenues by origin*

	2004		2003		2002	
	(in millions of euros)					
France	244.5	35%	202.2	33%	185.5	26%
Rest of Europe	64.8	9%	50.9	8%	66.4	9%
Asia-Pacific/ Middle East	137.0	20%	69.8	11%	94.7	14%
Africa	50.7	7%	78.3	13%	90.0	13%
Americas	195.7	28%	211.2	35%	264.1	38%
<b>Consolidated total</b>	692.7	100%	612.4	100%	700.7	100%

Outside France, the U.S. is the only country which is deemed material with 18%, 15% and 13% of consolidated revenues by origin in 2002, 2003 and 2004, respectively.

Due to the constant change in work locations, the Group does not track its assets based on country of origin or ownership.

**NOTE 16 RESEARCH AND DEVELOPMENT EXPENSES**

	Year		
	2004	2003	2002
	(in millions of euros)		
Research and development expenditures	(35.5)	(29.3)	(30.0)
Government grants recognized in income	2.0	2.4	2.9
<b>Research and development expenses, net</b>	(33.5)	(26.9)	(27.1)

Research and development expenditures related primarily to:  
for the geophysical services segment, projects concerning data processing services; and  
for the products segment, projects concerning seismic data recording equipment.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**NOTE 17 OTHER REVENUES AND EXPENSES, NET**

	Year		
	2004	2003	2002
	(in millions of euros)		
Gains on partial sales of businesses			6.4
Assets write-downs	0.3	(3.4)	(62.0)
Restructuring costs	(11.0)	(3.9)	(0.1)
Variation of reserves for restructuring	11.1	(11.8)	0.5
Other revenues		8.0	62.3
<b>Non-recurring revenues (expenses) net</b>	0.4	(11.1)	7.1
Gains (losses) on sale of assets	11.5	6.0	(1.0)
<b>Other revenues (expenses) net</b>	12.0	(5.1)	6.1

**Year ended December 31, 2004**

The provision for restructuring booked in 2003 was reversed for 11 million in 2004 once the restructuring expenses were incurred.

In 2004 other revenues and expenses were principally related to:

expenses related to the redemption of the \$75 million principal amount of the Company's 10% Senior Notes due 2007 for 4.3 million;

income related to insurance indemnities to be received for the loss of the Company's seismic vessel, the CGG Mistral, recorded for an amount of 1.8 million; and

gain on sale of own shares for 1.4 million

Gain on sale of assets included primarily a gain of 7.9 million on the disposal of PGS shares and a gain of 2.2 million on the disposal of a building.

**Year ended December 31, 2003**

The Group introduced measures in September 2003 to restructure its Land SBU, which led to a workforce reduction plan of 250 persons and the write-down of seismic acquisition inventories and assets.

The recorded costs include a fixed assets write-down of 2.3 million, an inventories write-down of 2.7 million and restructuring expenses of 1.6 million. The reserves of 11.8 million for the restructuring were primarily related to redundancy costs.

Restructuring costs included a marine redundancy plan of 1.5 million following the loss of the CGG Mistral.

Other revenues were principally related to:

a gain of 4.5 million recognized on the 51 million insurance proceeds in connection with the CGG Mistral loss as follows:

reimbursement of the hull: 39 million; and

reimbursement of the equipment on board: 12 million, given that the insurance reimbursement procedure for the rest of the equipment is in progress.



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

insurance indemnities recorded for 1.7 million in respect of marine and land seismic equipment damages, which equipment losses totaled 1.7 million.

Gains resulting from disposal of assets were essentially due to the sale of certain land non-exclusive surveys and the sale of 400,000 shares of PGS stock. Gains were 5.2 and 2.5 million, respectively.

**Year ended December 31, 2002**

Gains on partial sales businesses in 2002 included the sale in December of the Company's borehole seismic activity to Baker Atlas, a division of Baker Hughes Inc. and the sale of the Company's Paradigm stock in August (see Note 2).

Asset write-downs were related to the loss of the CGG Mistral and the geophysical equipment on board. In December 2002, our seismic vessel CGG Mistral sank after a fire broke out accidentally, offshore from Trinidad. All onboard personnel were evacuated and were safe. The streamers, which were deployed for operations at the time the fire broke out, were partially recovered. There was no material impact on the environment and no material impact on the 2002 results of operations due to the insurance indemnities to be received, recorded in the item Other of

Non-recurring revenues .

**NOTE 18 FINANCIAL EXPENSE, NET**

	Year		
	2004	2003	2002
	(in millions of euros)		
Financial expense	(25.2)	(27.3)	(31.6)
Allowance: unconsolidated investments (see Note 6)	(0.2)	3.3	(4.4)
<b>Total net</b>	<b>(25.4)</b>	<b>(24.0)</b>	<b>(36.0)</b>
Financial income	3.0	3.0	3.4
<b>Financial expense net</b>	<b>(22.4)</b>	<b>(21.0)</b>	<b>(32.6)</b>

**NOTE 19 INCOME TAXES****Income tax**

Income tax expense consisted of:

	Year		
	2004	2003	2002
	(in millions of euros)		
<b>France</b>			
Current income taxes	(0.3)	(0.2)	(0.3)
Deferred taxes and other	0.1	(0.1)	(0.9)
	(0.2)	(0.3)	(1.2)
<b>Foreign countries</b>			
Current income taxes <sup>(a)</sup>	(22.1)	(14.5)	(14.5)

Deferred taxes and other	12.6	11.7	(1.7)
	(9.5)	(2.8)	(16.2)
<b>Total income tax expense</b>	<b>(9.7)</b>	<b>(3.1)</b>	<b>(17.4)</b>

(a) Includes withholding taxes

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The Company and its subsidiaries compute income taxes in accordance with the applicable tax rules and regulations of the numerous taxing authorities where the Group operates. The tax regimes and income tax rates legislated by these taxing authorities vary substantially. In foreign countries, income taxes are often accrued based on deemed profits calculated as a percentage of sales as defined by local government tax authorities.

In accordance with the provisions of French tax law, the Company elected on January 1, 1991 to file a consolidated tax return for French subsidiaries in which the Company holds an interest of more than 95% from the beginning of the relevant year. The Company does not obtain any French tax credits in respect of income taxes paid abroad.

The complexity of the various tax rules and regulations do not permit meaningful comparisons of the French and foreign components of income before taxes and the provisions for income taxes. In addition, due to the mobile nature of seismic acquisition activities, current relationships between the French and foreign components of such tax items are not reliable indicators of such relationships in future periods.

The difference between the French statutory tax rate of 34.3% in 2004, 2003 and 2002 and the Group's effective rate of income tax of 44.5% in 2004, 42% in 2003 and 50% in 2002 relates primarily to the effective rate of tax in foreign jurisdictions and the potential future tax benefit of losses that have been provided for.

**Net operating loss carryforwards**

In both France and foreign jurisdictions where income tax is not determined based on deemed profits calculated as a percentage of sales, the main significant temporary differences between financial and tax reporting relate to net operating loss carryforwards.

Net operating loss carryforwards available in France and foreign jurisdictions, and not recognized as deferred tax assets at December 31, 2004, amounted to 228 million, including 115 million of long term taxable capital losses available in France at December 31, 2004 and are currently scheduled to expire as follows:

	<b>France</b>	<b>Foreign countries</b>
	<b>(in millions of euros)</b>	
2005	1.7	
2006		0.5
2007	113.8	0.5
2008	17.7	1.2
2009		0.5
2010 and thereafter	2.0	17.9
Available indefinitely	18.9	53.2
<b>Total</b>	<b>154.1</b>	<b>73.8</b>

Net operating loss carryforwards in France include both losses available for carryforward to reduce future French income tax payable by the consolidated tax Group as well as losses dating prior to January 1, 1991, which are only available to reduce future income tax of the individual subsidiaries of the Group.

Since the majority of the Group's deferred tax assets represent tax losses available for carryforward by entities that have a recent history of generating losses, it has been deemed more likely than not that those entities will not be able to utilize the losses in the near future. Consequently, the Group has recorded valuation allowances to fully provide for the potential tax benefit of these items in those entities.

Tax losses carried forward and not recorded as a deferred tax asset mainly relate to CMG tax losses for Mexican Pesos (MXN) of 102 million available beyond 2005, and Norwegian tax losses of Norwegian Kroner (NOK)

71 million and United Kingdom tax losses incurred of GBP 30 million. After taking into account the

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

financial forecasts, the Group decided not to record any deferred tax assets in respect of these tax losses available in future years.

**Deferred tax assets and liabilities**

Net deferred tax assets and liabilities are as follows:

	2004	2003	2002
	(in millions of euros)		
Deferred tax assets temporary differences	8.4	6.2	1.8
Deferred tax assets tax losses carried forward <sup>(a)</sup>	7.7	1.4	2.5
<b>Total Deferred tax assets</b>	<b>16.1</b>	<b>7.6</b>	<b>4.3</b>
<b>Total Deferred tax liabilities</b>	<b>(8.2)</b>	<b>(4.2)</b>	<b>(12.7)</b>
<b>Total deferred tax, net</b>	<b>7.9</b>	<b>3.4</b>	<b>(8.4)</b>

(a) relating to loss carry forwards in United Kingdom

Sercel Inc.'s positive tax planning, confirmed in 2004 by a taxable result, led to the recognition of a deferred tax income of 10.4 million representing Sercel Inc.'s net operating loss carryforwards (U.S.\$24.7 million) and temporary differences (U.S.\$10.1 million), at the enacted U.S. tax rate of 35%.

As of December 31, 2004, the deferred tax situation in France resulting from temporary differences between consolidated and taxable results resulted in a net deferred taxable basis of 31 million, whereby no deferred tax asset was recorded.

**Tax position and tax audit**

In 2002, CGG S.A. was subject to a tax audit from the French taxation authorities with respect to corporate taxes and value added taxes. The audit covered the 1991 through 2001 fiscal years. A 10.1 million taxable basis reassessment on the income tax was notified in December 2004. The Company has contested all of the tax reassessment. Whatever the conclusion of the discussions with tax authorities, the tax reassessment related to the audited fiscal years 1991 to 2001 would be offset against net operating loss carryforwards. However, applying new rules on the deductibility of some expenses would lead to reassessing the calculation of income tax starting in the 2002 fiscal year. Moreover, in 2003, Sercel S.A. and Sercel Holding S.A. were subject to a tax audit from the French taxation authorities with respect to corporate taxes and value added taxes. The audit covers the 2001 and 2002 fiscal years. A 0.7 million taxable basis reassessment on income tax was notified in September 2004 for Sercel Holding S.A. A 2.4 million taxable basis reassessment on income tax, which the Company contests, was notified in December 2004 for Sercel S.A.

The Group considers that the risk of tax reassessment for the 2002 fiscal year on the French consolidated tax group might result in a 2.3 million taxable basis, meaning 0.5 million income tax would be due. When the discussions with the tax authorities conclude and, if the Group has to correct the tax returns for 2002 and 2003 fiscal years, the Group would make a request for the additional income tax in fiscal year 2002 to be offset against the net operating tax loss carryforward in fiscal year 2003.

As a consequence, the Group believes that the risk related to those reassessments would only restate the amount of net operating losses carryforwards of the French consolidated tax group. Since no deferred tax has been recognized on such net operating losses carryforwards, no provision related to the tax reassessment was recorded in 2004.



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

On March 18, 2005, CGG Americas Inc. received correspondence from the U.S. Internal Revenue Service regarding an upcoming standard tax audit scheduled for the second quarter of 2005 covering CGG America's 2003 tax return.

Undistributed earnings of subsidiaries and the Group's share of undistributed earnings of companies accounted for using the equity method amount to 201.9 million, 168.5 million and 181.0 million at December 31, 2004, 2003 and 2002, respectively. The Group has made no provision for French taxes on these earnings, which would not be taxed when remitted.

**NOTE 20 PERSONNEL**

The analysis of personnel is as follows:

	<b>Year ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
<b>Personnel employed under French contracts</b>			
Geophysical services	797	895	910
Products	622	577	562
<b>Personnel employed under local contracts</b>	2,250	1,713	1,968
<b>Total</b>	3,669	3,185	3,440
 Including field staff of:	 475	 642	 749

The total cost of personnel employed by consolidated subsidiaries was 203.1 million in 2004, 205.7 million in 2003 and 221.8 million in 2002.

**NOTE 21 DIRECTOR'S REMUNERATION**

In 2004, directors' remuneration was 3,228,051.

Directors' remuneration paid by the Group covers all gross remuneration (2,939,051) and attendance fees (289,000) paid to members of the Management Committee and Directors.

**NOTE 22 RELATED PARTY TRANSACTIONS****Operating transactions**

The Group manufactures equipment and provides geophysical services to oil and gas exploration and production subsidiaries of TOTAL S.A. (TOTAL) pursuant to contracts entered into on an arm's-length basis. TOTAL holds a controlling interest in Total Chimie, which was one of the major shareholders of the Company during the periods presented but not at December 31, 2004.

Operating revenues to TOTAL amounted to 23.1 million in 2004, 30.2 million in 2003, and 40.0 million in 2002. As of December 31, 2004, TOTAL owed 6.0 million to the Group.

Louis Dreyfus Armateurs (LDA) provides ship management services for a portion of our fleet. Charter parties associated with these services are concluded on an arm's length basis. Debt to LDA was 6.2 million as of December 31, 2004. Total net charges paid throughout the year for the provision of ship management services were 0.5 million, and the future commitments for such services to LDA were 6.8 million.

LDA and the Group own Geomar, a company we account for using the equity method and the owner of the CGG *Alizé* seismic ship. LDA has a 51% stake and 49% stake in Geomar, and amounts paid to Geomar by the Group during the year were 9.0 million, while future charterparty amounts due to Geomar were 18.6 million. Debt to Geomar was 0.7 million at December 31, 2004.



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The sales of geophysical products from Sercel to Argas, a 49% owned affiliate, were 1.3 million, representing 0.2% of the Group revenues, in 2004.

Sales of geophysical products from Sercel to Xian Peic, a 40% owned affiliate, were 4.8 million, representing 0.7% of Group revenues, in 2004.

**Financing**

No credit facility or loan was granted to the Company by shareholders during the three periods presented.

**NOTE 23 SUPPLEMENTARY CASH FLOW INFORMATION**

Cash paid for income taxes and interest was as follows:

	<b>Year ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Interest	24.6	28.2	31.1
Income taxes	17.0	15.2	19.4

The other non-cash items include notably the elimination of the unrealized exchange gains resulting from the debt (maintained in foreign currency) located in those subsidiaries whose functional currency is euro, which amounted to (12.7) million in 2004, (22.5) million in 2003 and (22.7) million in 2002.

Non-cash investing and financing transactions that are excluded from the consolidated statements of cash flows consisted of the following:

	<b>Year ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Equipment acquired under capital leases	8.7	8.1	8.6

**NOTE 24 ASSET VALUATION ALLOWANCES**

Details of valuation allowances recorded against assets are as follows:

	<b>Year ended December 31, 2004</b>			<b>Balance at end of year</b>
	<b>Balance at beginning of year</b>	<b>Additions/ Deductions charged to income</b>	<b>Other<sup>(a)</sup></b>	
	<b>(in millions of euros)</b>			
Trade accounts and notes receivable	3.9		0.6	4.4
Inventories and work-in-progress	22.7	(6.9)	(0.4)	15.4
Other current assets	0.6	0.1		0.7
Loans receivable and other investments	1.5	0.2	(0.2)	1.5
<b>Total allowances</b>	<b>28.6</b>	<b>(6.6)</b>		<b>22.0</b>

(a) Includes the effects of exchange rate changes and acquisitions and divestitures

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Year ended December 31, 2003**

	<b>Balance at beginning of year</b>	<b>Additions/ Deductions charged to income</b>	<b>Other<sup>(a)</sup></b>	<b>Balance at end of year</b>
	<b>(in millions of euros)</b>			
Trade accounts and notes receivable	7.0	(2.9)	(0.1)	3.9
Inventories and work-in-progress	30.4	(5.5)	(2.3)	22.6
Other current assets	0.1	0.5		0.6
Loans receivable and other investments	4.9	(3.4)	(0.1)	1.5
<b>Total allowances</b>	<b>42.5</b>	<b>(11.3)</b>	<b>(2.5)</b>	<b>28.6</b>

(a) Includes the effects of exchange rate changes and acquisitions and divestitures

**Year ended December 31, 2002**

	<b>Balance at beginning of year</b>	<b>Additions/ Deductions charged to income</b>	<b>Other<sup>(a)</sup></b>	<b>Balance at end of year</b>
	<b>(in millions of euros)</b>			
Trade accounts and notes receivable	7.0	0.2	(0.2)	7.0
Inventories and work-in-progress	35.0	(1.3)	(3.3)	30.4
Other current assets	0.5	(0.4)		0.1
Loans receivable and other investments	0.9	4.0		4.9
<b>Total allowances</b>	<b>43.4</b>	<b>2.5</b>	<b>(3.5)</b>	<b>42.4</b>

(a) Includes the effects of exchange rate changes and acquisitions and divestitures

**NOTE 25 PROVISIONS FOR LIABILITIES AND CHARGES**

Detail of provisions for liabilities and charges is as follows:

**Year ended December 31, 2004**

<b>Balance at beginning of year</b>	<b>Additions</b>	<b>Deductions (used)</b>	<b>Deductions (unused)</b>	<b>Other<sup>(a)</sup></b>	<b>Balance at end of year</b>
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(in millions of euros)

Provisions for contract losses	2.3	3.3	(2.5)		1.6	4.7
Provisions for restructuring costs	12.2		(11.0)	(0.2)		1.0
Provisions for litigation	1.8	3.9	(0.4)			5.3
Provisions for exchange losses				(0.8)	0.8	
Other provisions for liabilities			(0.2)		0.4	3.2
Other provisions for charges	3.7	1.7	(1.2)		(1.2)	3.2
<b>Total short-term provisions</b>	<b>20.0</b>	<b>8.9</b>	<b>(15.3)</b>	<b>(1.0)</b>	<b>1.6</b>	<b>14.2</b>
Retirement indemnity provisions	10.3	1.8	(1.1)	(0.1)	0.3	11.2
Customer Guarantee provisions	2.6	2.4	(2.1)		0.3	3.2
Other provisions	0.4	0.5	(0.3)		1.0	1.6
<b>Total long-term provisions</b>	<b>13.3</b>	<b>4.7</b>	<b>(3.5)</b>	<b>(0.1)</b>	<b>1.6</b>	<b>16.0</b>
<b>Total provisions</b>	<b>33.3</b>	<b>13.6</b>	<b>(18.7)</b>	<b>(1.1)</b>	<b>3.2</b>	<b>30.3</b>

(a) Includes the effects of exchange rate changes and acquisitions and divestitures

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The variation of provisions is principally due to the Land SBU restructuring plan.

Other short-term provisions include primarily provisions for various operational risks.

**NOTE 26 SUBSEQUENT EVENTS**

The Board of Directors meeting on December 8, 2004 authorized the Company to partially redeem its 10<sup>5</sup>/<sub>8</sub>% Senior Notes, up to a principal amount of U.S.\$75 million. According to the indenture governing those notes, such early redemption required the payment of a premium representing 5.3125% of the total redemption amount, (U.S.\$4.0 million) plus accrued interest. The total cost of such redemption for the Company was therefore U.S.\$79 million. The redemption of U.S.\$75 million in principal amount of the Notes was realized on January 26, 2005. The premium and the unamortized portion of the deferred expenditures linked to this redemption were recognized in the income statement as Other expenses at December 31, 2004.

On February 14, 2005, the Company ended its cooperation agreements with PT Alico, a company that was fully consolidated in the CGG group's accounts until 2004 as a consequence of the cooperation agreements until 2004. Under these agreements, CGG indemnified PT Alico against certain specific risks. The liability is limited and has been accrued in the financial statements at December 31, 2004. This liability will expire on June 30, 2006 and the Company will have no further commitment to PT Alico or its shareholders. PT Alico was excluded from the scope of consolidation of the CGG group on February 14, 2005.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**NOTE 27 LIST OF PRINCIPAL CONSOLIDATED SUBSIDIARIES AND COMPANIES  
ACCOUNTED FOR USING THE EQUITY METHOD AS OF DECEMBER 31, 2004**

Certain dormant or insignificant subsidiaries of the Group have not been included in the list below.

Siren Number <sup>(a)</sup>	Consolidated companies	Head Office	% of interest
403 256 944	CGG Marine SAS	Massy, France	100.0
351 834 288	Geocal SARL	Massy, France	100.0
966 228 363	Geoco SAS	Paris, France	100.0
378 040 497	Sercel SA	Carquefou, France	100.0
410 072 110	CGG Explo SARL	Massy, France	100.0
866 800 154	Sercel Holding SA	Carquefou, France	100.0
	CGG Americas, Inc.	Houston, United States	100.0
	CGG do Brasil Participações Ltda	Rio do Janeiro, Brazil	100.0
	CGG Canada Services Ltd.	Calgary, Canada	100.0
	CGG International SA	Geneva, Switzerland	100.0
	CGG (Nigeria) Ltd.	Lagos, Nigeria	100.0
	CGG Marine Resources Norge A/S	Hovik, Norway,	100.0
	CGG Offshore UK Ltd.	United Kingdom	100.0
	CGG Pan India Ltd. <sup>(b)</sup>	New Delhi, India	40.0
	CGG Selva	Lima, Peru	100.0
	Compañía Mexicana de Geofísica	Mexico City, Mexico.	100.0
	Companhia de Geologia e Geofísica Portuguesa	Lisbon, Portugal	100.0
	Exgeo CA	Caracas, Venezuela	100.0
	Geoexplo	Almaty, Kazakhstan	100.0
	Geophysics Overseas Corporation Ltd.	Nassau, Bahamas	100.0
	CGG Australia Services Pty Ltd.	Sydney, Australia	100.0
	CGG Asia Pacific <sup>(c)</sup>	Kuala Lumpur, Malaysia	33.2
	Petroleum Exploration Computer Consultants Ltd.	Forest Row, United Kingdom	100.0
	PT Alico <sup>(d)</sup>	Jakarta, Indonesia	100.0
	Sercel Australia	Sydney, Australia	100.0
	Hebei Sercel JunFeng <sup>(e)</sup>	Hebei, China	51.0
	Sercel Inc.	Tulsa, United States	100.0
	Sercel Singapore Pte Ltd.	Singapore, Singapore	100.0
	Sercel England Ltd.	Somercotes, United Kingdom	100.0
	Sercel Canada Ltd.	Calgary, Canada	100.0

(a) Siren number is an individual identification number for company registration purposes under French law.

(b) The Group consolidates its investment in Pan India Ltd (40%) because a shareholder agreement effectively provides the Group with operating control of the company (the Chairman of the Board is nominated by the Group).

- (c) The implementation of the French law on financial security ( Loi sur la Sécurité financière ) under French led to the consolidation of CGG Asia Pacific, in which CGG owns 33.2% of the ordinary shares and 30% of the total shares.
- (d) PT Alico is consolidated at December 31, 2004 as a result of the cooperation agreements with CGG, although the Group does not own any investment in this company; on February 14, 2005, the Group ended its agreements with PT Alico, excluding it from the Group's scope of consolidation.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

(e) Sercel JunFeng is fully consolidated since, according to the management agreement, the Group has operating control of the company.

Siren number <sup>(a)</sup>	Accounted for using the equity method	Head Office	% of interest
413 926 320	Geomar SAS	Paris, France	49.0
	Argas Ltd.	Al-Khobar, Saudi Arabia	49.0
	JV Xian Peic/Sercel Limited	Xian, China	40.0
	VS Fusion	Houston, United States	49.0

**NOTE 28 RECONCILIATION TO U.S. GAAP****A SUMMARY OF DIFFERENCES BETWEEN ACCOUNTING PRINCIPLES FOLLOWED BY THE GROUP AND U.S. GAAP**

The accompanying Consolidated Financial Statements have been prepared in accordance with the accounting principles described in Note 1 above ( French GAAP ), which differ in certain significant respects from U.S. GAAP. These differences relate mainly to the following items, and the necessary adjustments are shown in the tables in section B.

**Derivative instruments and hedging activity**

Under French GAAP, as described in Note 13 of our consolidated financial statements, derivative instruments used as hedges are not recognized in the balance sheet and hedging gains and losses are recorded in the same period as the income or loss on the hedge transactions.

Under U.S. GAAP beginning January 1, 2001 with the adoption of SFAS No. 133, ( Accounting for Derivative Instrument and Hedging Activities ) all derivative instruments are recorded in the balance sheet at fair value. Specifically:

hedge accounting may only be applied to hedges meeting strict criteria and SFAS No. 133 defines new requirements for designation and documentation of hedging relationships as well as ongoing effectiveness assessments in order to use hedge accounting;

for derivatives qualifying as hedges of future cash flows, the effective portion of changes in fair value is recorded temporarily in equity (Other Comprehensive Income), then recognized in earnings along with the related effects of the hedged items. Any ineffective portion of hedges is reported in earnings as it occurs;

for derivatives qualifying as fair value hedges, changes in fair value of both the derivative and the hedged item are recognized in earnings;

for embedded derivatives in contracts in foreign currencies (primarily U.S. dollar), revenue and expenses with a non-U.S. client or supplier are recognized at the forward exchange rate negotiated at the beginning of the contract. The variation of fair market value of the embedded derivative foreign exchange contracts is recognized in earnings; and

if hedge accounting is not applied, changes in the fair value of derivative instruments are recorded in earnings.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Goodwill amortization and impairment**

Under French GAAP, goodwill is amortized on a straight-line basis over its estimated useful life.

Under U.S. GAAP, before 31 December 2001, no difference was reported for goodwill accounting. Since 1st January 2002, however, goodwill is no longer amortized but remains at its carrying value as of December 31, 2001. Under the provisions of SFAS 142 Goodwill and Other Intangible Assets, goodwill is tested for impairment at least annually. Differences could also occur in the determination of the charge of impairment of goodwill under French GAAP and U.S. GAAP. Such difference was reported for the year 2004 related to the goodwill of CMG following the Land restructuring plan.

**Impairment of long-lived assets**

Under French GAAP, long-lived assets are written down when, as a result of events or changes in circumstances within the year, their recoverable value appears to have declined on an other than temporary basis to an amount less than their carrying value. Impairment is determined for each group of autonomous assets by comparing their carrying value with the undiscounted cash flows that they are expected to generate based upon management's expectations of future economic and operating conditions.

Should the above comparison indicate that an asset is impaired, the write-down recognized is equivalent to the difference between carrying value and either market value or the sum of discounted future cash flows.

Under U.S. GAAP and starting on 1st January 2003, the date of adoption of SFAS 144 Accounting for the Impairment or Disposal of Long-lived Assets, the method described above is relevant only for long-lived assets to be held and used, while assets to be disposed of by sale should be reported as selling price less costs to sale.

No such difference was reported for the year 2004.

**Available-for-sale securities**

Under French GAAP, investment in equity securities are recorded at acquisition cost and an allowance is provided if management deems that there has been an other-than-temporary decline in fair value. Unrealized gains and temporary unrealized losses are not recognized. For trade securities, the allowance is evaluated based on the average of the market price on the last 30 days.

Under U.S. GAAP, investments in equity securities are classified into two categories and accounted as follows: Equity securities that are acquired and held principally for the purpose of sale in the near term are classified as trading securities and are reported at fair value, with unrealized gains and losses included in earnings. All other equity securities are classified in available for sale securities and reported at fair value, with unrealized gains and losses excluded from earnings and reported in shareholder's equity. In case of other-than-temporary loss in fair value, a loss is recorded in earnings. Fair value is evaluated based on the market price at the closing rate.

**Stock-based compensation**

Under French GAAP, no compensation cost is recognized for stock options.

For U.S. GAAP purposes as permitted by SFAS 123, the Company applies the recognition and measurement principles of APB Opinion 25. The stock-based compensation plans qualify as fixed plans under APB 25 and compensation cost is equal to the excess, if any, of the market price of the underlying shares at the date of grant over the exercise price of the option.

The accounting policy for the method of recognizing compensation costs for fixed awards with pro rata vesting is the straight-line method.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Income taxes**

Under French GAAP, deferred tax assets or liabilities, related to non-monetary assets or liabilities that are remeasured from the local currency into the functional currency using historical exchange rates and that result from changes in exchange rates, are recognized.

Under U.S. GAAP, deferred tax liabilities or assets are not recognized for differences related to assets and liabilities that, under SFAS 52, Foreign Currency Translation, are remeasured from the local currency into the functional currency using historical exchange rates and that result from changes in exchange rates.

Furthermore, the calculation of deferred tax liability on goodwill amortized for tax calculation purposes is different under U.S. GAAP compared with French GAAP.

**Comprehensive income**

Comprehensive income includes all changes in equity during a period except those resulting from investments by owners and distributions to owners. In the consolidated financial statements, the concept of comprehensive income does not exist because French accounting principles do not authorize any change in equity corresponding to this definition other than net income and changes in the cumulative translation adjustment related to foreign subsidiaries.

In U.S. GAAP financial statements, comprehensive income and its components must be displayed in a statement of comprehensive income.

For the Group, this statement includes, in addition to net income:

changes in the cumulative translation adjustment related to consolidated foreign subsidiaries;

changes in the fair value of derivative instruments designed as cash flow hedges meeting the criteria established by SFAS 133; and

changes in the amount of the additional minimum pension liability due to actuarial losses.

**Treasury shares**

Under French GAAP, the company shares owned for the purpose of employee allocation or share price regulation are considered as marketable securities and are accounting for under the item Cash and Cash equivalents; gains on the company shares owned for the purpose of regulating stock price are accounting for in profit and loss.

Under U.S. GAAP, treasury shares are accounting for as a reduction of equity whatever is the purpose for owning it; gain or losses on treasury shares are reflected in equity.

**Bonds convertible into shares or redeemable in shares**

Under French GAAP, convertible bonds are wholly accounted for as financial debt.

Under U.S. GAAP, when the convertible debt is qualified as conventional, the beneficial conversion feature related to this debt, assessed as a difference between the fair value and the face value of the bond, is classified from financial debt to equity. This beneficial conversion feature is then realized through profit and loss over the debt lifetime.

Moreover, under U.S. GAAP, embedded derivatives in the bonds contract that do not qualify as closely related to the contract should be recognized at fair value.

As regards subordinated bonds convertible into new ordinary shares or redeemable into new shares and/or existing shares and/or in cash (the Bonds ) issued in 2004, there is an embedded derivative that can not be

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

reliably assessed, corresponding to the clause of early redemption (see note 10). The probability for this clause to occur being uncertain, the related embedded derivative cannot be measured reliably and thus is not recognized by the Group in its U.S. GAAP financial statements.

**Redemption of debt**

Under French GAAP, with respect to the early redemption of the senior notes, the difference between the reacquisition price and the net carrying value of the senior notes is recognized as soon as the offer to redeem the senior notes is irrevocable.

Under U.S. GAAP, with respect to the early redemption of the senior notes, the difference between the reacquisition price and the net carrying value of the senior notes (net of issuance costs and premium) may be recognized only upon the redemption and cancellation of the senior notes.

**Presentation of Consolidated Statements of operations**

Under French GAAP, certain expenses, such as Goodwill amortization, are recorded below Operating income in the Consolidated Statements of operations.

Under U.S. GAAP, these expenses would be classified as operating expenses/ revenues.

**B RECONCILIATION OF NET INCOME AND SHAREHOLDERS EQUITY TO U.S. GAAP AND  
CONDENSED U.S. GAAP STATEMENT OF OPERATIONS AND BALANCE SHEET**

**Net income (loss)<sup>(a)</sup>**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Net Income (loss) as reported in the Consolidated Statements of operations under French GAAP	11.1	(10.4)	17.4
Goodwill amortization (FAS 142)	6.2	7.7	6.3
Deferred tax asset (FAS 109)	(4.6)	(7.1)	
Stock option (APB 25)	(0.2)	(0.4)	
Available-for-sale securities (FAS 115)	1.3	(0.8)	(0.5)
Loss on extinguishment of debt	2.8		
Gain on treasury shares	(1.4)		
Derivative instruments and hedging activities (FAS 133)	(11.9)	14.1	(8.1)
<b>Net income under U.S. GAAP</b>	<b>3.3</b>	<b>3.1</b>	<b>15.1</b>

(a) All adjustments disclosed above are net of tax effects, if applicable

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**Shareholder's equity<sup>(a)</sup>**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(in millions of euros)</b>		
Shareholder's equity as reported in the Consolidated Balance Sheets under French GAAP	395.7	396.6	437.5
Goodwill amortization	18.2 <sup>(b)</sup>	14.0	6.3
Deferred tax asset	(10.7) <sup>(b)</sup>	(7.1)	
Stock options	(0.6)	(0.4)	
Available-for-sale securities		(1.3)	(0.5)
Loss on extinguishment of debt	2.8		
Derivative instruments and hedging activities	(12.3)	(0.4)	(14.5)
Convertible bonds	0.7		
Other comprehensive income	2.6	12.0	2.2
<b>Shareholder's equity under U.S. GAAP</b>	<b>396.4</b>	<b>413.4</b>	<b>431.0</b>

(a) All adjustments disclosed above are net of tax effects, if applicable

(b) This amount is net of cumulative currency translation adjustment effect

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**  
**CONDENSED U.S. GAAP STATEMENTS OF OPERATIONS AND BALANCE SHEET**  
**Condensed U.S. GAAP Statements of Operations**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(amounts in millions of euros, except per share data)</b>		
<b>Operating revenues</b>	709.5	645.6	719.0
Cost of operations	(559.5)	(494.5)	(528.6)
<b>Gross profit</b>	150.0	151.1	190.4
Research and development expenses net	(33.5)	(26.9)	(27.1)
Selling, general and administrative expenses	(79.7)	(79.2)	(86.7)
Other revenues (expenses) net	18.2	(2.3)	5.3
<b>Operating income</b>	55.0	42.7	81.9
Interest and other financial income and expense net	(22.4)	(25.1)	(33.1)
Exchange losses net	(23.6)	(4.0)	(25.4)
Equity in income of affiliates	10.3	6.5	7.2
<b>Income before income taxes and Minority interest</b>	19.3	20.1	30.6
Income taxes	(15.0)	(16.7)	(13.3)
Minority interest	(1.0)	(0.3)	(2.2)
<b>Net income</b>	3.3	3.1	15.1
Weighted average number of shares outstanding	11,681,406	11,680,718	11,680,718
Dilutive potential shares from stock options	137,197	79,912	(a)
Dilutive potential shares from bonds	(b)		
Adjusted weighted average shares and assumed option exercises	11,818,603	11,760,630	11,680,718
<b>Earnings per share</b>			
Basic for common stock holder	0.28	0.27	1.29
Basic for bond holder	0.28		
Diluted for common stock holder	0.28	0.26	1.29
Diluted for bond holder	0.28		

- (a) For the year ended December 31, 2002, the effects of stock options were anti-dilutive.
- (b) For the year ended December 31, 2004, the effects of convertible bonds were anti-dilutive.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**  
**Condensed consolidated U.S. GAAP Balance Sheet**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(amounts in millions of euros)</b>		
<b>ASSETS</b>			
Current assets	480.2	418.1	511.3
Long-term assets	495.6	506.1	525.5
<b>Total Assets</b>	<b>975.8</b>	<b>924.2</b>	<b>1,036.8</b>
<b>LIABILITIES AND SHAREHOLDERS EQUITY</b>			
Total current liabilities	325.8	262.1	305.2
Total long-term liabilities	244.4	239.9	290.3
Minority interest	9.1	8.8	10.3
Total shareholders equity	396.4	413.4	431.0
<b>Total liabilities and shareholders equity</b>	<b>975.8</b>	<b>924.2</b>	<b>1,036.8</b>

**Statement of Comprehensive Loss<sup>(a)</sup>**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>(amounts in millions of euros)</b>		
Net income under U.S. GAAP	3.3	3.1	15.1
Other comprehensive income (loss):			
Changes in the cumulative translation adjustment	(13.6)	(30.5)	(42.7)
Changes in the fair value of available-for-sale securities	(7.8)	7.8	
Changes in the fair value of derivative instruments	(1.5)	2.0	2.2
<b>Comprehensive loss under U.S. GAAP</b>	<b>(19.6)</b>	<b>(17.6)</b>	<b>(25.4)</b>

(a) All adjustments disclosed above are net of tax effects, if applicable  
**Statement of Accumulated Other Comprehensive Loss<sup>(a)</sup>**

	<b>December 31</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>

	<b>(in millions of euros)</b>		
Translation adjustment	(65.2)	(51.6)	(21.1)
Fair value of available-for-sale securities		7.8	
Fair value of derivative instruments	2.7	4.2	2.2
<b>Accumulated Other Comprehensive Loss</b>	<b>(62.5)</b>	<b>(39.6)</b>	<b>(18.9)</b>

(a) All adjustments disclosed above are net of tax effects, if applicable

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

**C ADDITIONAL U.S. GAAP DISCLOSURES****Stock option plans**

The fair value for these stock options was estimated at the date of grant using a Black-Scholes option pricing model with the following average assumptions:

	2004 <sup>(a)</sup>	2003	2002
Risk-free interest rates		3.94%	3.3%
Dividend yields		0.0%	0.0%
Volatility factors of the expected market price of the Company's ordinary shares		0.573	0.429
Weighted average expected life		8 years	8 years

(a) No grants of stock options were made in 2004

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense on a straight-line basis over the options' vesting period. The Company's pro forma information is detailed below:

	<b>December 31</b>		
	2004	2003	2002
	<b>(in millions of euros except for income (loss) per share information)</b>		
Net income, as reported	3.3	3.1	15.1
Add: total stock-based employee compensation expense included in reported net income, net of related tax effect	0.2	0.4	
Deduct: total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(3.8)	(4.7)	(4.5)
Pro forma U.S. GAAP net income (loss)	(0.3)	(1.2)	10.6
<b>Earnings per share:</b>			
Basic for common stock holder as reported	0.28	0.27	1.29
Basic for bond holder as reported	0.28		
Basic for common stock holder pro forma	(0.10)	(0.10)	0.91
Basic for bond holder pro forma	(0.10)		
Diluted for common stock holder as reported	0.28	0.27	1.29
Diluted for bond holder as reported	0.28		
Diluted for common stock holder pro forma	(0.10)	(0.10)	0.91
Diluted for bond holder pro forma	(0.10)		

The Black-Scholes option pricing model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of

highly subjective assumptions including expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, the existing model, in management's opinion, does not necessarily provide a single measure of the fair value of its employee stock options.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The weighted-average fair value of options granted during 2004, 2003, and 2002 was as follows:

	2004	2003	2002
Options whose price was lower than the market price of the underlying shares on the grant date		11.14	29.50
Options whose price equaled the market price of the underlying shares on the grant date			
Options whose price was greater than the market price of the underlying shares on the grant date			

The weighted average remaining contractual life of options outstanding at December 31, 2004 is 4.5 years.

**Derivative financial instruments*****Fair Value Hedge and Cash Flow Hedge***

The ineffectiveness of cash-flow hedges for the year 2004, 2003 and 2002 amounted to (13) million, 21 million and (12) million respectively, and is reported in the Exchange losses, net line item of the condensed statements of operations.

Gains accumulated in Comprehensive income were 2.7 million, 4.2 million and 2.2 million as of December 31, 2004, 2003 and 2002.

***Hedge of the net investment in a foreign operation***

A portion of the amount of our outstanding bond denominated in U.S. dollar has been designated as a hedge of the investment in U.S. dollar. The net amount of gains that has been included in the cumulative translation adjustment was 4.9 million, 13.8 million and 15.4 million during the year 2004, 2003 and 2002 respectively.

**Available for sale securities**

All available for sale securities (PGS shares) were sold in 2004 and the total net gains (including (7.8) million recorded in Comprehensive Income) were 1.3 million in 2004. The gross realized gains that have been included as a result of the sale of available for sale securities was 9.2 million in 2004.

The aggregate fair-value of available for sale securities (PGS shares) was 13.5 million as of December 31, 2003 and the total net gains (included 7.8 million recorded in Comprehensive Income) were 11.4 million in 2003. The gross realized gains that have been included in earnings as a result of sale of available for sale securities were 5.3 million in 2003.

**Restructuring plan**

The evolution of the restructuring reserve under U.S. GAAP during the year ended December 31, 2004, related to the Land SBU restructuring plan initiated after December 31, 2003 was as follows:

	Balance at beginning of year	Additions	Deductions (used)	Deductions (unused)	Balance at end of year
Termination benefits	10.8		(10.4)	0.4	
Contract termination costs	0.6		(0.4)	(0.2)	0.0
Other associated costs	0.7		(0.2)		0.5
Total	12.1		(11.0)		0.9





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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The evolution of the restructuring reserve under U.S. GAAP during the year ended December 31, 2003, related to the Land SBU restructuring plan initiated in 2003 was as follows:

<b>Year ended December 31, 2003</b>					
<b>Balance at beginning of year</b>	<b>Additions</b>	<b>Deductions (used)</b>	<b>Deductions (unused)</b>	<b>Other<sup>(a)</sup></b>	<b>Balance at end of year</b>
<b>(in millions of euros)</b>					
Termination benefits	10.8				10.8
Contract termination costs	0.6				0.6
Other associated costs	0.8			(0.1)	0.7
<b>Total</b>	<b>12.2</b>			<b>(0.1)</b>	<b>12.1</b>

(a) Includes the effects of exchange rate changes

The major type of costs associated with the exit or disposal activities of our Services segment after December 31, 2002 are presented as follows:

	<b>Total amount expected</b>	<b>Amount incurred as of Dec. 31, 2004</b>	<b>Cumulative amount incurred as of Dec. 31, 2004</b>
<b>(in millions of euros)</b>			
Termination benefits	10.8	10.4	10.4
Contract termination costs	0.4	0.4	0.4
Other associated costs	1.6	0.2	1.1
<b>Total</b>	<b>12.8</b>	<b>11.0</b>	<b>11.8</b>

**Recently issued accounting pronouncements**

The new European rule n° 1606/2002 endorsed in 2002 by the European Union requires all listed companies to adopt IFRS as its primary GAAP from January 1, 2005. The first CGG Group's consolidated financial statements under IFRS GAAP would be those closed at March 31, 2005. The Group will present restated 2004 financial statements for the comparable period under IFRS GAAP.

Consolidated financial statements under IFRS GAAP for 2004 year would be presented in compliance with IFRS GAAP effective at January 1, 2005, as released at December 31, 2004. Moreover, the Group chose to apply the standards IAS 39 and IFRS 2 starting January 1, 2004 to ensure 2004 financial statements to be comparable with 2005 financial statements.

In order to prepare and make easier the understanding of the information to be provided under IFRS GAAP, a qualitative analysis of the IFRS implementation is presented in Item 5, indicating those standards that differ from the current primary GAAP, i.e. French GAAP, and from U.S. GAAP, and the options chosen by CGG Group in the first adoption of IFRS GAAP, when there is a significant impact on consolidated financial statements.

On December 16, 2004, the Financial Accounting Standards Board ( FASB ) issued FASB Statement No. 123 (revised in 2004), *Share-Based Payment* , which is a revision of FASB Statement No. 123, *Accounting for Stock-Based Compensation* . Statement 123(R) supersedes APB Opinion No. 25, *Accounting for Stock Issued to Employees* and amends FASB Statement No. 95, *Statement of Cash Flows* . Generally, the approach in FASB Statement 123(R) is similar to the approach described in FASB Statement 123. However, FASB Statement 123(R) requires all share-based payments to employees, including grants of employee stock

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)**

options, to be recognized in the income statement based on their fair values. Pro forma disclosure is no longer an alternative.

FASB Statement 123(R) must be adopted no later than July 1, 2005.

FASB Statement 123(R) permits public companies to adopt its requirements using one of two methods:

modified prospective method, in which compensation cost is recognized beginning with the effective date (i) based on the requirements of FASB Statement 123(R) for all share-based payments granted after the effective date and (ii) based on the requirements of FASB Statement 123 for all awards granted to employees prior to the effective date of FASB Statement 123(R) that remain unvested on the effective date.

modified retrospective method, which includes the requirements of the modified prospective method described above, but also permits entities to restate based on the amounts previously recognized under FASB Statement 123 for purposes of pro forma disclosures either (i) all prior periods presented or (ii) prior interim periods of the year of adoption.

The company plans to adopt FASB Statement 123 using the modified-prospective method.

**D CONDENSED CONSOLIDATING INFORMATION FOR CERTAIN SUBSIDIARIES**

The following table presents condensed consolidating financial information in French GAAP for the Company, on the one hand, and CGG Canada Services Ltd, CGG Americas Inc., CGG Marine Resources Norge A/S, Sercel Inc., Sercel Australia Pty Ltd and Sercel Canada Ltd, taken as a group (the Subsidiary Group), on the other hand, as of and for the years ended December 31, 2004, 2003 and 2002. The column Sercel Subsidiary Group includes Sercel Inc., Sercel Australia Pty Ltd and Sercel Canada Ltd. Sercel Australia Pty Ltd was consolidated in our financial statements for the year ended December 31, 2004 but not for the years ended December 31, 2003 and 2002.

French GAAP	CGG	Subsidiary Group	Others	Consolidating Adjustments	Consolidated	Sercel Subsidiary Group
(in millions of euros)						
<b>2004</b>						
Total assets	630.7	341.8	718.5	(751.4)	939.6	150.8
Operating revenues	190.7	227.8	589.6	(315.5)	692.7	104.8
Net income (loss)	(38.2)	31.7	78.7	(61.1)	11.1	14.2
Operating income	(45.2)	36.2	64.5	(19.8)	35.7	6.8
<b>2003</b>						
Total assets	622.4	305.7	650.3	(699.1)	879.3	104.2
Operating revenues	249.9	209.5	497.5	(344.5)	612.4	75.9
Net income (loss)	(50.1)	18.7	28.8	(7.8)	(10.3)	(3.6)
Operating income	(60.7)	21.9	53.7	(4.3)	10.6	1.3
<b>2002</b>						
Total assets	735.6	347.1	754.2	(812.4)	1,024.5	117.8
Operating revenues	323.1	254.2	555.7	(432.3)	700.7	92.8
Net income (loss)	(14.6)	14.1	12.7	5.3	17.4	(7.5)
Operating income	(33.5)	23.3	78.8	(7.0)	61.6	(2.6)

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Arabian Geophysical & Surveying Company  
(A Saudi Arabian Limited Liability Company)  
FINANCIAL STATEMENTS  
31 DECEMBER 2004

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**AUDITORS REPORT TO THE PARTNERS OF  
ARABIAN GEOPHYSICAL & SURVEYING COMPANY LIMITED**

We have audited the accompanying balance sheet of Arabian Geophysical & Surveying Company, a Saudi Arabian Limited Liability Company, expressed in Saudi Riyals, as of 31 December 2004, 2003 and 2002 and the related statements of income, cash flows and changes in partners' equity for the years then ended. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards in the Kingdom of Saudi Arabia, which are substantially the same as those followed in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Arabian Geophysical & Surveying Company, a Saudi Arabian Limited Liability Company as of 31 December 2004, 2003 and 2002 and the results of its operations and its cash flows for the years then ended in conformity with accounting standards generally accepted in the Kingdom of Saudi Arabia.

Accounting principles generally accepted in the Kingdom of Saudi Arabia vary in certain significant respects from accounting principles generally accepted in the United States of America. The significant differences between the accounting principles generally accepted in the Kingdom of Saudi Arabia and those generally accepted in the United States of America so far as concerns the financial statements referred to are summarised in note 20 to the accompanying financial statements.

for Ernst & Young  
Abdulaziz Saud Alshubaibi  
Certified Public Accountant  
Saudi Registration No. 339  
Alkhobar, Saudi Arabia  
1 February 2005

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**  
**BALANCE SHEET**

As at 31 December 2004

	Note	2004	2003	2002
		SR	SR	SR
<b>ASSETS EMPLOYED</b>				
<b>PROPERTY, PLANT AND EQUIPMENT</b>				
	3	121,111,759	174,344,719	232,465,525
<b>CURRENT ASSETS</b>				
Inventories	4	7,961,714	4,890,999	6,309,357
Accounts receivable and prepayments	5	101,800,723	85,954,484	117,498,199
Bank balances and cash		104,151,363	85,090,860	49,625,386
		213,913,800	175,936,343	173,432,942
<b>CURRENT LIABILITIES</b>				
Accounts payable and accruals	6	12,078,475	29,952,747	12,723,351
Current portion of term loans	8		30,900,000	86,950,000
Zakat and income tax payable	9	17,166,077	12,390,391	11,422,566
		29,244,552	73,243,138	111,095,917
<b>NET CURRENT ASSETS</b>		184,669,248	102,693,205	62,337,025
		305,781,007	277,037,924	294,802,550
<b>FUNDS EMPLOYED</b>				
<b>PARTNERS EQUITY</b>				
Capital	10	36,000,000	36,000,000	36,000,000
Statutory reserve	11	18,000,000	18,000,000	18,000,000
General reserve	12	4,646,910	4,646,910	4,646,910
Capital reserve	13	13,392,139	6,961,297	7,820,117
Reserve for employees training	14	3,000,000	3,000,000	3,000,000
Retained earnings		217,433,007	162,775,989	126,432,709
		292,472,056	231,384,196	195,899,736
<b>NON CURRENT LIABILITIES</b>				
Term loans	8		34,866,667	90,466,667
Employees terminal benefits		13,308,951	10,787,061	8,436,147
		13,308,951	45,653,728	98,902,814
		305,781,007	277,037,924	294,802,550

The attached notes 1 to 20 form part of these financial statements.

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**  
**STATEMENT OF INCOME**

**Year ended 31 December 2004**

	Note	2004	2003	2002
		SR	SR	SR
Contract revenue		324,889,670	306,295,873	305,330,088
Operating costs		(227,316,493)	(223,800,880)	(223,548,272)
<b>GROSS PROFIT</b>		<b>97,573,177</b>	<b>82,494,993</b>	<b>81,781,816</b>
General and administration expenses	15	(4,870,222)	(5,038,543)	(5,199,594)
<b>INCOME FROM MAIN OPERATIONS</b>		<b>92,702,955</b>	<b>77,456,450</b>	<b>76,582,222</b>
Other income	16	7,778,330	812,163	648,734
Other expenses	17	(40,740)	(1,150,521)	(865,123)
Financial charges		(1,352,685)	(3,633,632)	(6,692,771)
<b>NET INCOME FOR THE YEAR</b>		<b>99,087,860</b>	<b>73,484,460</b>	<b>69,673,062</b>

The attached notes 1 to 20 form part of these financial statements.

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**  
**STATEMENT OF CASH FLOWS**

Year ended 31 December 2004

Note	2004	2003	2002
	SR	SR	SR
<b>OPERATING ACTIVITIES</b>			
Net income for the year	99,087,860	73,484,460	69,673,062
Adjustments for:			
Depreciation	62,855,322	64,333,171	79,463,888
(Profit)/loss on sale of plant and equipment	(6,430,842)	858,820	489,737
	155,512,340	138,676,451	149,626,687
Changes in operating assets and liabilities:			
Inventories	(3,070,715)	1,418,358	(274,697)
Receivables	2,818,073	41,728,621	(4,542,463)
Payables	215,844	56,670	(36,885,162)
Cash from operations	155,475,542	181,880,100	107,924,365
Employees terminal benefits, net	2,521,890	2,350,914	2,163,051
Zakat and income tax paid	9 (12,598,742)	(11,424,355)	(10,688,437)
Net cash from operating activities	145,398,690	172,806,659	99,398,979
<b>INVESTING ACTIVITIES</b>			
Purchase of plant and equipment	(10,789,409)	(13,436,425)	(36,353,925)
Proceeds from sale of plant and equipment	7,597,889	6,365,240	8,073,671
Net cash used in investing activities	(3,191,520)	(7,071,185)	(28,280,254)
<b>FINANCING ACTIVITIES</b>			
Term loans, net	(65,766,667)	(111,650,000)	(9,400,000)
Dividends paid	(57,380,000)	(18,620,000)	(20,060,780)
Net cash used in financing activities	(123,146,667)	(130,270,000)	(29,460,780)
<b>INCREASE IN CASH</b>	<b>19,060,503</b>	<b>35,465,474</b>	<b>41,657,945</b>
Cash at the beginning of the year	85,090,860	49,625,386	7,967,411
<b>CASH AT THE END OF THE YEAR</b>	<b>104,151,363</b>	<b>85,090,860</b>	<b>49,625,386</b>

The attached notes 1 to 20 form part of these financial statements.



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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**  
**STATEMENT OF CHANGES IN PARTNERS EQUITY**

Year ended 31 December 2004

	Capital	Statutory reserve	General reserve	Capital reserve	Reserve for employees training	Retained earnings	Total
	SR	SR	SR	SR	SR	SR	SR
Balance at 31 December 2001	36,000,000	15,947,837	4,646,910	8,309,854	3,000,000	78,382,853	146,287,454
Net income for the year						69,673,062	69,673,062
Provision for zakat and income tax (note 9)						(11,422,566)	(11,422,566)
Zakat and income tax reimbursable by the partners						11,422,566	11,422,566
Transfer to statutory reserve		2,052,163				(2,052,163)	
Transfer from capital reserve (note 13)				(489,737)		489,737	
Transfer to retained earnings					(1,835,729)	1,835,729	
Transfer to reserve for employees training (note 14)					1,835,729	(1,835,729)	
Dividends relating to 2001						(20,060,780)	(20,060,780)
Balance at 31 December 2002	36,000,000	18,000,000	4,646,910	7,820,117	3,000,000	126,432,709	195,899,736
Net income for the year						73,484,460	73,484,460
Provision for zakat and						(12,390,391)	(12,390,391)

income tax (note 9)								
Zakat and income tax reimbursable by the partners						12,390,391		12,390,391
Transfer from capital reserve (note 13)				(858,820)		858,820		
Transfer to retained earnings					(2,134,170)	2,134,170		
Transfer to reserve for employees training (note 14)					2,134,170	(2,134,170)		
Dividends relating to 2002						(38,000,000)		(38,000,000)
<b>Balance at 31 December 2003</b>	36,000,000	18,000,000	4,646,910	6,961,297	3,000,000	162,775,989		231,384,196
Net income for the year						99,087,860		99,087,8600
Provision for zakat and income tax (note 9)						(17,374,428)		(17,374,428)
Zakat and income tax reimbursable by the partners						17,374,428		17,374,428
Transfer to capital reserve (note 13)				6,430,842		(6,430,842)		
Transfer to retained earnings					(2,077,836)	2,077,836		
Transfer to reserve for employees training (note 14)					2,077,836	(2,077,836)		
Dividends relating to 2003						(38,000,000)		(38,000,000)
<b>Balance at 31 December 2004</b>	36,000,000	18,000,000	4,646,910	13,392,139	3,000,000	217,433,007		292,472,056

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The attached notes 1 to 20 form part of these financial statements.

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**31 December 2004**

**1 ACTIVITIES**

The company is a Limited Liability Company registered in Saudi Arabia under Commercial Registration number 2051001444 dated 28 Muharram 1389H corresponding to 15 March 1969.

The company is engaged in geophysical and related activities necessary for the exploration and development of hydro-carbons.

The company is owned 51% by Industrialisation and Energy Services Company, a limited liability company registered in Saudi Arabia and 49% by Compagnie Generale de Geophysique (CGG), a company registered in France.

**2 SIGNIFICANT ACCOUNTING POLICIES**

The financial statements have been prepared in accordance with accounting standards generally accepted in the Kingdom of Saudi Arabia. The significant accounting policies adopted are as follows:

**Accounting convention**

The financial statements are prepared under the historical cost convention.

**Depreciation**

Freehold land is not depreciated. All property, plant and equipment are initially recorded at cost. Depreciation is provided on all property, plant and equipment on a straight line basis at rates calculated to write off the cost of each asset over its expected useful life.

**Inventories**

Inventories are valued at the lower of cost and market after making due allowance for any obsolete or slow moving items. Cost is determined on a first-in first-out basis (see note 4).

**Zakat and income tax**

Zakat and income tax are provided for in accordance with Saudi Arabian fiscal regulations. The liability is charged to retained earnings. Accordingly, any reimbursements by the partners of such zakat and income tax are credited to retained earnings.

**Employees terminal benefits**

Provision is made for amounts payable under the Saudi Arabian labour law applicable to employees accumulated periods of service at the balance sheet date.

**Contract revenue**

Contract revenue represents the invoiced and accrued value of services rendered by the company during the year.

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**  
**NOTES TO THE FINANCIAL STATEMENTS (continued)**

**Foreign currencies**

Transactions in foreign currencies are recorded in Saudi Riyals at the rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the balance sheet date. All differences are taken to the statement of income.

**Expenses**

Employee related costs, depreciation and training expenses are charged to operating costs. All other expenses are classified as general and administration expenses.

**3 PROPERTY, PLANT AND EQUIPMENT**

The estimated useful lives of the assets for the calculation of depreciation are as follows:

Camp and research equipment	5 <sup>1</sup> / <sub>3</sub> years
Vehicles	4 to 5 <sup>1</sup> / <sub>3</sub> years
Others	5 <sup>1</sup> / <sub>3</sub> years

	Freehold land	Camp and research equipment	Vehicles	Others	Total 2004	Total 2003	Total 2002
	SR	SR	SR	SR	SR	SR	SR
<b>Cost:</b>							
At the beginning of the year	1,382,000	397,158,664	55,104,334	4,071,820	457,716,818	521,502,125	560,299,139
Additions		6,583,829	3,933,866	271,714	10,789,409	13,436,425	36,353,925
Disposals		(36,940,177)	(115,282)	(127,895)	(37,183,354)	(77,221,732)	(75,150,939)
At the end of the year	1,382,000	366,802,316	58,922,918	4,215,639	431,322,873	457,716,818	521,502,125
<b>Depreciation:</b>							
At the beginning of the year		233,586,217	46,596,320	3,189,562	283,372,099	289,036,600	276,160,243
Charge for the year		58,957,637	3,644,727	252,958	62,855,322	64,333,171	79,463,888
Disposals		(35,773,138)	(115,281)	(127,888)	(36,016,307)	(69,997,672)	(66,587,531)
At the end of the year		256,770,716	50,125,766	3,314,632	310,211,114	283,372,009	289,036,600
<b>Net book amounts:</b>							
<b>At 31 December 2004</b>	1,382,000	110,031,600	8,797,152	901,007	121,111,759		

<b>At 31 December 2003</b>	1,382,000	163,572,447	8,508,014	882,258	174,344,719
<b>At 31 December 2002</b>	1,382,000	221,830,430	8,469,189	783,906	232,465,525

**4 INVENTORIES**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Equipment spares and others	6,697,432	4,813,651	5,866,138
Goods in transit	1,264,282	77,348	443,219
	7,961,714	4,890,999	6,309,357

Saudi Arabian accounting standards require that the cost of inventories should be determined using the average method. The company is in the process of changing its computer system to enable it to use the average method. In the meantime, the cost of inventories has been determined on a first-in first-out method. It is estimated that if the company had used the average method, the cost of inventories would not have been materially different.



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Inventories are held for internal use only and are not intended for resale.

**5 ACCOUNTS RECEIVABLE AND PREPAYMENTS**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Trade accounts receivable	48,034,478	24,033,667	50,445,316
Retentions receivable	35,159,374	51,263,358	55,237,931
Amounts due from partners	16,856,091	7,617,984	8,702,654
Advances to suppliers	208,164	723,577	1,146,825
Other receivables	307,976	996,515	1,010,541
Prepaid expenses	1,234,640	1,319,383	954,932
	<b>101,800,723</b>	<b>85,954,484</b>	<b>117,498,199</b>

All services rendered by the company during the year were to one customer under three contracts. All trade accounts receivable and all retentions receivable are due from that customer. The customer would normally pay 90% of the amount billed within 30 days of the date of the invoice and the balance held as retentions upon submission of zakat and income tax clearance certificate for the relevant year.

Amounts due from the partners represents SR 2,478,777 (2003: Nil and 2002: SR 917,247) due from the Saudi partner and SR 14,894,518 (2003: SR 11,100,507 and 2002: SR 10,505,319) from CGG (less any pending amount due to the partner) in respect of zakat and income tax respectively (see note 9).

**6 ACCOUNTS PAYABLE AND ACCRUALS**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Trade accounts payable	6,718,682	6,583,563	6,271,239
Amount due to a partner		17,051,226	
Amounts due to affiliates (note 7)	293,909	826,766	683,451
Accrued expenses	3,967,197	4,209,785	4,770,652
Other payables	1,098,687	1,281,407	998,009
	<b>12,078,475</b>	<b>29,952,747</b>	<b>12,723,351</b>

According to the terms offered by the suppliers, trade accounts payable are normally settled within 30 to 100 days of the date of invoice.

In 2003, amount due to a partner represented dividend payable of SR 19,380,000 to the Saudi partner (less amount due from the partner in respect of zakat).

**7 RELATED PARTY TRANSACTIONS AND BALANCES**

During the year, a proportion (2003 and 2002: a proportion) of the company's research equipment has been acquired from one of the partners and its affiliates. The company also acquired a small proportion of its equipment spares and services requirements from the same affiliates. Prices and terms of payments of these transactions are approved by the management. Amounts due from and due to the partners and their affiliates are shown in notes 5

and 6, respectively.

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**8 TERM LOANS**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Bank loans		65,766,667	177,416,667
Less: Non current portion		34,866,667	90,466,667
Current portion		30,900,000	86,950,000

During the year the management decided to fully repay all loans before their due dates.

**9 ZAKAT AND INCOME TAX****a) Zakat**

The zakat provision relating to the Saudi partner consists of:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Provision for the year	2,271,559	1,289,884	917,247
Prior years	207,308	143	268
Charge for the year	2,478,867	1,290,027	917,515

The Saudi partner's provision is based on his share as follows:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Equity	98,625,940	99,908,866	64,375,604
Opening provisions and other adjustments	5,501,401	4,302,435	3,199,279
Book value of long term assets	(65,182,687)	(91,370,769)	(121,549,148)
	38,944,654	12,840,532	(53,974,265)
Zakatable income for the year	51,917,716	38,754,818	36,689,881
Zakat base	90,862,370	51,595,350	36,689,881

**b) Income tax**

The income tax provision relating to the foreign partner consists of:

<b>2004</b>	<b>2003</b>	<b>2002</b>
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	<b>SR</b>	<b>SR</b>	<b>SR</b>
Provision for the year	14,894,518	11,100,507	10,505,319
Prior year	1,043	1,646	3,087
Charge for the year	14,895,561	11,102,153	10,508,406

Income tax has been provided for based on the estimated taxable income at various rates up to 30% (2003 and 2002: up to 30%).

The differences between the financial and taxable/ zakatable income are mainly due to adjustments for certain costs/ claims based on the relevant fiscal regulations.

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**c) Movement in provision**

The movement in the zakat and income tax provision was as follows:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
At the beginning of the year	12,390,391	11,422,566	10,685,082
Provided during the year	17,374,428	12,392,180	11,425,921
Payments during the year	(12,598,742)	(11,424,355)	(10,688,437)
At the end of the year	17,166,077	12,390,391	11,422,566

**d) Status of assessments**

Zakat and income tax assessments have been agreed with the Department of Zakat and Income Tax (DZIT) up to 1991 and from 1994 to 1996. Decisions for the years 1992 and 1993 have been received from the Higher Appeal Committee (HAC) and the company is awaiting for the revised assessments from the DZIT. Assessments for the years 1997 to 2000 have been raised by the DZIT demanding an additional amount of SR 4.7 million. The company had appealed against these assessments to the Preliminary Appeal Committee (PAC) which has upheld the company's point of view on major amounts involved. Revised assessment from the DZIT is awaited. Assessments for the years 2001 and 2002 have also been received from the DZIT demanding an additional amount of SR 4.6 million. The company has appealed against these assessments.

The declaration for the year 2003 has been filed and is under review by the DZIT.

**10 CAPITAL**

Capital is divided into 36,000 authorised, issued and fully paid up shares of SR 1,000 each (2003 and 2002: 36,000 shares).

**11 STATUTORY RESERVE**

In accordance with Saudi Arabian Regulations for Companies, the company must set aside 10% of its net income in each year until it has built up a reserve equal to one half of the capital. This having been achieved in 2002 (2002: SR 2,052,163 and 2001: SR 6,566,004), the company has resolved to discontinue such transfers. The reserve is not available for distribution.

**12 GENERAL RESERVE**

There are no restrictions on the distribution of this reserve.

**13 CAPITAL RESERVE**

An amount equal to the profit on disposal of property, plant and equipment is transferred from retained earnings to capital reserve and vice versa in case of loss. Although the capital reserve is a free reserve, yet it is not intended to be distributed.

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**14 RESERVE FOR EMPLOYEES TRAINING**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
At the beginning of the year	3,000,000	3,000,000	3,000,000
Transfer to retained earnings	(2,077,836)	(2,134,170)	(1,835,729)
Transfer from retained earnings	2,077,836	2,134,170	1,835,729
At the end of the year	3,000,000	3,000,000	3,000,000

An amount equal to expenses incurred on training during the year has been transferred to retained earnings.

In accordance with the company's articles of association, the company has allocated 10% of the net income for the year, subject to a maximum limit of SR 3 million, for training programmes for Saudi Arabian nationals.

**15 GENERAL AND ADMINISTRATION EXPENSES**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Rent	1,178,503	1,271,583	1,158,508
Printing and stationery	872,659	886,376	968,649
Postage, fax and telephone	587,883	642,201	752,800
Other	2,231,177	2,238,383	2,319,637
	4,870,222	5,038,543	5,199,594

**16 OTHER INCOME**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Profit on sale of plant and equipment	6,430,842		
Income from bank deposits	1,347,488	812,163	648,734
	7,778,330	812,163	648,734

**17 OTHER EXPENSES**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Loss on sale of plant and equipment		858,820	489,737
Exchange loss	40,740	291,701	375,386

40,740	1,150,521	865,123
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**18 CAPITAL COMMITMENTS**

The directors have authorised future capital expenditure amounting to SR 6.5 million (2003: SR 8.6 million and 2002: SR 15.7 million).

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**19 CONTINGENT LIABILITY**

The company's banker has issued payment guarantees to the DZIT amounting to SR 9,129,001 (2003: SR 9,129,001 and 2002: SR 9,129,001). The bankers of the foreign partner have provided counter guarantees to the company's banker on its behalf.

**20 SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN ACCOUNTING PRINCIPLES FOLLOWED BY THE COMPANY AND UNITED STATES GENERALLY ACCEPTED ACCOUNTING PRINCIPLES**

The financial statements of the company have been prepared in accordance with accounting standards generally accepted in the Kingdom of Saudi Arabia. For purposes of these financial statements, the following are the differences between the company's accounting principles utilized and United States Generally Accepted Accounting Principles (US GAAP).

a. Following is a reconciliation of net income to US GAAP:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Net income according to financial statements (under Saudi accounting standards)	99,087,860	73,484,460	69,673,062
US GAAP adjustments:			
Provision for zakat and income tax (note 9(c))	(17,374,428)	(12,390,391)	(11,422,566)
Additional liability for zakat and income tax for finalized years (refer below)	(3,761,410)	(3,761,410)	(3,761,410)
Deferred tax debit	400,542	357,175	272,207
Net income under US GAAP	78,352,564	57,689,834	54,761,293
Difference in net income between Saudi Standards and US GAAP's	20,735,296	15,794,626	14,911,769

Additional zakat and income tax relates to the years 1992 and 1993 which is pending final revised assessment.

The amount of zakat and income tax assessed for the years 1997 and 2000 of SR 4,701,115 has not been taken into consideration in the above reconciliation as this has been appealed against and the final amount ultimately payable cannot be determined with reasonable accuracy (refer note 9(d)).

b. Following is a reconciliation of partners' equity for differences with US GAAP:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Partners' equity according to financial statements (under Saudi accounting standards)	292,472,056	231,384,196	195,899,736
US GAAP adjustments:			
Difference in net income (note 20 a.)	(20,735,296)	(15,794,626)	(14,911,769)



Partners' equity under US GAAP	\$ 271,736,760	\$ 215,589,570	\$ 180,987,967
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**c. Dividends paid**

Dividends paid during the year amounting to SR 38,000,000 (2003: SR 38,000,000 and 2002: SR 20,060,780) included payments to the partners on account of zakat and income tax equalisation.

**d. Related party transactions**

The following are the amounts of transactions with related parties as described in note 7:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Expenses charged to operating costs	4,342,076	5,040,839	5,445,185
Purchase of fixed assets	3,280,208	5,903,222	26,627,724

**e. Earnings per share**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Based on net income as per Saudi accounting standards	2,752	2,041	1,935
Based on net income as per US GAAP s	2,176	1,602	1,521