BIO RAD LABORATORIES INC Form S-4 September 19, 2003 Table of Contents

As filed with the Securities and Exchange Commission on September 19, 2003

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-4

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

BIO-RAD LABORATORIES, INC.

(Exact Name of Registrants as Specified in Their Charters)

Delaware (State or Other Jurisdiction

of Incorporation or

Organization)

3826 (Primary Standard 94-1381833 (I.R.S. Employer

Industrial Classification

Identification Number)

Code Number)

1000 Alfred Nobel Drive

Hercules, California 94547

(510) 724-7000

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrants Principal Executive Offices)

Sanford S. Wadler

Vice President and General Counsel

Bio-Rad Laboratories, Inc.

1000 Alfred Nobel Drive

Hercules, California 94547

(510) 724-7000

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Tracy K. Edmonson, Esq.

Latham & Watkins LLP

505 Montgomery Street, Suite 1900

San Francisco, California 94111

(415) 391-0600

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration number for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier, effective registration statement for the same offering.

CALCULATION OF REGISTRATION FEE

		Proposed	Proposed	
Title of Each Class of	Amount to be	Offering Price	Aggregate	Amount of
Securities to be Registered	Registered	Per Note(1)	Offering Price	Registration Fee
7.50% Senior Subordinated Notes due 2013	\$225,000,000	100%	\$225,000,000	\$18,203

(1) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(f).

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until this registration statement shall become effective on such date as the SEC, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and we are not soliciting offers to buy these securities, in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED SEPTEMBER 19, 2003

PRELIMINARY PROSPECTUS

BIO-RAD LABORATORIES, INC.

OFFER TO EXCHANGE

\$225,000,000 principal amount of its

7.50% Senior Subordinated Notes due 2013

which have been registered under the Securities Act,

for any and all of its outstanding 7.50% Senior Subordinated Notes due 2013

The exchange offer expires at 5:00 p.m., New York City time, on

, 2003, unless extended.

We will exchange all outstanding notes that are validly tendered and not validly withdrawn for an equal principal amount of a new series of notes which are registered under the Securities Act.

The exchange offer is not subject to any conditions other than that it not violate applicable law or any applicable interpretation of the staff of the SEC.

You may withdraw tenders of outstanding notes at any time before the exchange offer expires.

The exchange of notes will not be a taxable event for U.S. federal income tax purposes.

We will not receive any proceeds from the exchange offer.

The terms of the new series of notes are substantially identical to the outstanding notes, except for transfer restrictions and registration rights relating to the outstanding notes.

You may tender outstanding notes only in denominations of \$1,000 and multiples of \$1,000.

Our affiliates may not participate in the exchange offer.

Please refer to Risk Factors beginning on page 12 of this prospectus

for a description of the risks you should consider before buying the notes.

We are not making this exchange offer in any state where it is not permitted.

Neither the Securities and Exchange Commission nor any state securities commission has approved of the notes or determined that this prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2003.

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We have not authorized any dealer, salesperson or other people to give any information or make any representations to you other than the information contained in this prospectus. You must not rely on any information or representations not contained in this prospectus as if we had authorized it. This prospectus does not offer to sell or solicit an offer to buy any securities other than the registered notes to which it relates, nor does it offer to buy any of these notes in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

The information contained in this prospectus is current only as of the date on the cover page of this prospectus, and may change after that date.

This prospectus incorporates important business and financial information about us that is not included in or delivered with this prospectus. This information is available without charge to you upon written or oral request. If you would like a copy of any of this information, please submit your request to Bio-Rad Laboratories, Inc., 1000 Alfred Nobel Drive, Hercules, California 94547, Attention: Legal Department, or call (510) 724-7000 and ask to speak to someone in our Legal Department. In addition, to obtain timely delivery of any information you request, you must submit your request no later than , 2003, which is five business days before the date the exchange offer expires.

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DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes forward-looking statements, as defined by federal securities laws, with respect to our financial condition, results of operations and business and our expectations or beliefs concerning future events. Words such as, but not limited to, believe, expect, anticipate, estimate, intend, plan, targets, likely, will, would, could and similar expressions or phrases identify forward-looking statements.

All forward-looking statements involve risks and uncertainties. The occurrence of the events described, and the achievement of the expected results, depend on many events, some or all of which are not predictable or within our control. Actual results may differ materially from expected results.

Factors that may cause actual results to differ from expected results include, among others:

our ability to successfully develop and market new products;

our reliance on and access to necessary intellectual property;

our substantial leverage and ability to service our debt;

competition in and government regulation of the industries in which we operate; and

the monetary policies of various countries.

All future written and verbal forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We undertake no obligation, and specifically decline any obligation, to publicly 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 prospectus might not occur.

See the section entitled Risk Factors for a more complete discussion of these risks and uncertainties and for other risks and uncertainties. These factors and the other risk factors described in this prospectus are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in any of our forward-looking statements. Other unknown or unpredictable factors also could harm our results. Consequently, we cannot assure you that the actual results or developments we anticipate will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, us. Given these uncertainties, we caution prospective investors not to place undue reliance on such forward-looking statements.

TRADEMARKS AND TRADE NAMES

We own or have rights to trademarks, service marks, copyrights and trade names that we use in conjunction with the operation of our business. This prospectus also includes trademarks, service marks and trade names of other companies.

MARKET DATA

Market data used throughout this prospectus, including information relating to our relative position in the industries we operate in, are based on the good faith estimates of management, which estimates are based upon their review of internal surveys, independent industry publications, reports or studies commissioned by companies in our industry (including us or our competitors) and other publicly available information. Although we believe that these sources are reliable, we do not guarantee the accuracy or completeness of this information, and we have not independently verified this information.

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PROSPECTUS SUMMARY

As used in this prospectus, the terms Company, Bio-Rad, we, our, ours, and us refer to Bio-Rad Laboratories, Inc. and its subsidiaries, except in the section Description of Notes and where it is clear that such terms mean only Bio-Rad Laboratories, Inc. or Bio-Rad and its consolidated subsidiaries. The following summary contains basic information about this offering. It likely does not contain all the information that is important to you. For a more complete understanding of this offering, we encourage you to read this entire document and the documents we reference herein. Please refer to the Glossary of Terms section of this prospectus for a description of certain terms used herein.

We will refer to the offering of the private notes as the private offering. Unless indicated otherwise, the term notes refers to both the private notes and the exchange notes.

Investors should carefully consider the information set forth under Risk Factors. In addition, some statements include forward-looking information which involves risks and uncertainties.

Our Company

We are a multinational manufacturer and worldwide distributor of life science research and clinical diagnostics products. Organizing our business around two primary segments, Life Science and Clinical Diagnostics, our mission is to provide scientists with the specialized tools needed for discovery in biological research and clinical diagnostics.

We believe we are the market leader in many of the product areas in which we compete, selling more than 8,000 products and services to a diverse client base comprised of scientific research, healthcare, industrial, educational and government customers worldwide. We manufacture and supply our customers with a broad range of products and systems used to separate complex chemical and biological materials and to identify, analyze and purify their components. Because our customers require standardization for their experiments and test results, we believe approximately 70% of our revenue is considered recurring.

We continue to build upon our worldwide reputation for quality, innovative products and well-recognized brand names within our industry. Our reach is global, as we currently provide products and services to 70,000 customers in 130 countries worldwide. For the year ended December 31, 2002 and for the six-month period ended June 30, 2003, we had net sales of \$892.7 million and \$489.5 million, respectively, and EBITDA (as defined in footnote (5) of Summary Consolidated Financial and Other Data) of \$170.6 million and \$99.5 million, respectively.

Our Life Science segment and our Clinical Diagnostics segment generated 48% and 51%, respectively, of our net sales for the year ended December 31, 2002. We generated approximately 36% of our consolidated net sales for the year ended December 31, 2002 from U.S. sales and approximately 64% from sales in our remaining worldwide markets.

In addition to our significant internal focus on the development and commercialization of new products, we have also pursued tactical acquisitions to round out our existing product offerings or enter complementary markets in which we believe we could be a market leader. For example, our acquisition of Pasteur Sanofi Diagnostics (PSD), in October 1999, gave us access to, among other things, exclusive licenses from the Institut Pasteur in the HIV and infectious disease diagnostic product market as well as the testing technology for mad cow disease. PSD also expanded the geographic reach and market penetration for our products, particularly in Latin America, Africa and France. In order to focus on our core Life Science and Clinical Diagnostics businesses, we have also divested non-core assets. In 2000 and 2001, we sold substantially all of our analytical instruments product lines.

Our founders, David and Alice Schwartz, are still actively involved in the Company and have provided continuity of leadership and control since the Company was founded in 1957. Collectively, as of August 31, 2003, the Schwartz family owns approximately 17% of our Class A Common Stock and 88% of our Class B Common Stock.

Life Science Segment

Our Life Science segment is at the forefront of discovery, creating advanced tools for biological exploration, biopharmaceutical production (the production of new medicines) and food supply testing. We are a market leader in this segment, developing, manufacturing and marketing a complete range of more than 5,000 consumables, apparatus and laboratory instruments, many of which are used in established research techniques, biopharmaceutical production processes and food testing regimes. These techniques are typically used to separate, purify and identify biological materials such as proteins, nucleic acids and bacteria within a laboratory or production setting. We focus on selected segments of the life sciences market in proteomics (the study of proteins), genomics (the study of genes), biopharmaceutical production, cell biology and food safety. We estimate that the 2002 worldwide sales of products in these selected segments exceeded \$3 billion.

We are a leading player in many of the life science markets that we serve. We believe we rank first in sales in the electrophoresis market and that we are second in sales in the image analysis market. In the gene transfer market, we have the leading market position based on exclusive rights we possess with respect to key intellectual property. We believe we are the leading supplier of mad cow disease testing.

Our principal life science customers include universities and medical schools, industrial research organizations, government agencies, pharmaceutical manufacturers, biotechnology researchers and food testing laboratories.

Clinical Diagnostics Segment

Our Clinical Diagnostics segment designs, manufactures, sells and supports test systems, informatics systems, test kits and specialized quality controls that serve clinical laboratories in the global diagnostics market. We estimate that the 2002 worldwide sales in this market were approximately \$23 billion.

We supply more than 3,000 different products covering more than 300 clinical diagnostic tests to the specialty *in vitro* diagnostics (IVD) test market. We estimate that the 2002 worldwide sales in this market were approximately \$9 billion. IVD tests are conducted outside the body and are used to identify and measure substances in a patient s tissue, blood or urine. Our products consist of reagents, instruments and software, typically provided to our customers as an integrated package to allow them to generate reproducible test results. Revenue in this business is highly recurring, as laboratories typically standardize test methodologies, which are dependent on a particular supplier s reagents and consumable products. An installed base of diagnostic test systems creates an ongoing source of revenue through the sale of test kits for each sample analyzed on an installed system.

Our products currently address specific niches within the specialty IVD test market, and we focus on the higher margin, higher growth segments of this market. We are a significant player in multiple specialty diagnostics segments, and we believe that we have leading market positions in certain areas, including autoimmune disease testing, quality control products, blood virus detection and long-term diabetes monitoring performed in laboratories.

Our principal clinical diagnostic customers include hospital laboratories, reference laboratories, transfusion laboratories, physician office laboratories, newborn screening facilities and insurance and forensic testing laboratories.

Our Competitive Strengths

We believe Bio-Rad maintains the following competitive strengths:

Leading Market Positions. Our well-recognized name, brands and our reputation for quality and reliability have allowed us to gain what we believe are leading market positions across many of our primary product segments. Our Life Science segment is a leading supplier of high-quality reagents, apparatus and instruments used for electrophoresis, chromatography, imaging and gene transfer applications, as well as mad cow disease tests. Our Clinical Diagnostics segment is a world leader in the supply of diagnostics for autoimmune disease and quality control. As a result of our acquisition of PSD, we became a leader in HIV diagnostics.

Largely Recurring Revenue Base. Historically, we have generated significant recurring revenue through (1) the supply of reagents and other consumables to our life science and clinical diagnostics customers; (2) our leading position in providing quality control systems; and (3) our focus on establishing long-term customer relationships. We believe that 70% of our revenues are considered recurring, primarily in the form of reagents and other consumables.

Significant Cash Flow Generation. Over the last several years, we have generated significant cash flow, allowing us to pay down over time all of our outstanding bank debt as well as repurchase a portion of our outstanding subordinated bonds. From the beginning of 2000 to the end of June 2003, we have paid down over \$150 million of debt from internally generated funds and the proceeds of divestitures of certain non-core assets.

Diversified Global Customer and Product Base. Our worldwide customer base includes (1) prominent university and research institutions affiliated with more than 100,000 scientists in the U.S. alone; (2) hospital, public health and commercial laboratories; (3) other leading diagnostic manufacturers; and (4) leading companies in the biotechnology, pharmaceutical, chemical and food industries. In 2002, no single customer accounted for more than 2% of our total net sales.

Extensive Worldwide Direct Sales Force and Service Organization. We conduct our worldwide operations through an extensive direct sales force and service network, employing more than 1,000 sales and service people in over 70 countries. Our sales force typically consists of experienced industry practitioners with scientific training, and we maintain a separate specialist sales force for each of our segments. Our direct sales approach contrasts with the distributor approach used by many of our competitors, allowing us to sell a broader range of our products and have more direct contact with our customers.

Long and Successful History of Commercialization. We have a long and successful history of introducing new products developed by our own research programs, and by individuals and entities with a desire to commercialize their research and know-how. We conduct extensive product research and development activities and employ approximately 500 scientists worldwide in these activities. We spent \$82.9 million on research and development activities in 2002.

Growth Opportunities. We believe the stable historic growth in research and development expenditures by our core customer base will continue, providing us the opportunity to grow our business. Within our Life Science segment, we believe we are particularly well-positioned to benefit from an expected increase in expenditures within high-growth areas of research such as proteomics, genomics, biopharmaceutical production and food safety. In addition, within our Clinical Diagnostics segment, we are focused on high-growth areas such as quality control systems, informatics and genetic disorders. As a result of our acquisition of PSD, we are among the leaders in infectious disease testing and we anticipate that we will benefit from further growth in this segment.

Highly Experienced Management Team. One of our key strengths is the depth and experience of our management team. Our founders, David and Alice Schwartz, are still actively involved in the Company and have provided continued leadership for over forty-five years. Our officers have extensive industry expertise and average over 15 years of experience with the Company. Members of our management team have gained extensive international exposure by managing our overseas operations and those of other companies.

Our Business Strategy

Our objective is to continue to grow profitably through the research, development, sales and distribution of commercially useful and innovative products. We intend to continue to sell a diverse product line based on a broad range of technologies and to distribute these products globally. To achieve our objectives, we will:

Leverage Our Expertise, Brand Recognition and High-Quality Reputation to Strengthen Our Leadership Positions. Through our technical expertise and long history serving our markets, we have established recognized brand names and a reputation for high quality, reliable products and services. We believe that this combination provides us the opportunity to strengthen our leading positions in existing markets and to selectively enter related niche markets where we can obtain a leading market position.

Emphasize Recurring Revenues from Sales of Our Consumables. We intend to continue to pursue our strategy of emphasizing recurring revenues. We intend to accomplish this by (1) marketing and selling instruments that include a strong consumable use component and (2) supplying consumable reagents under long-term agreements and subscription or modular software products.

Introduce New Products, Product Enhancements and Applications. Our research and development program, consisting of approximately 500 personnel, is focused on the commercialization of new life science research and diagnostic techniques, especially in the high-growth fields of proteomics, genomics and specialty diagnostics. Both our Life Science and Clinical Diagnostics segments have current initiatives in database development and bio-informatics. In addition to our own research and development, we benefit from our relationships with our customers, such as universities, who provide us with access to a variety of opportunities to commercialize their scientific research. Our partnership with Institut Pasteur provides us with new opportunities in areas of diagnostics and life sciences.

Pursue Tactical Acquisitions. We pursue tactical acquisitions which allow us to expand our product lines on a cost-effective basis. We typically target niche companies with proven technology and established brand names that are complementary to our existing product portfolio in order to fill in or expand markets in which we have already established ourselves as a market leader, or to enter related markets in which we believe we will become a market leader. We are evaluating a number of acquisitions on a preliminary basis, but it is not certain that any of these transactions will advance beyond the preliminary stages or be completed. In addition, we continue to examine our existing businesses with a view to optimizing our growth and profitability objectives, and as a result, we may divest certain non-strategic assets.

Maximize Our Operating Efficiencies. We are constantly evaluating ways to increase our operating efficiencies by reviewing and improving our manufacturing, distribution and administrative processes. In addition, the natural interplay between life science research and commercialization of clinical diagnostics test systems, combined with the proximity in which our scientists in both these segments work, provides us with additional operating efficiencies and business opportunities.

Our principal executive offices are located at 1000 Alfred Nobel Drive, Hercules, California 94547. Our telephone number is (510) 724-7000.

The Exchange Offer				
The Exchange Offer	We are offering to exchange the exchange notes for the outstanding private notes that are properly tendered and accepted. You may tender outstanding private notes only in denominations of \$1,000 and multiples of \$1,000. We will issue the exchange notes on or promptly after the exchange offer expires. As of the date of this prospectus, \$225,000,000 principal amount of private notes is outstanding.			
Expiration Date	The exchange offer will expire at 5:00 p.m., New York City time, on , 2003, unless extended, in which case the expiration date will mean the latest date and time to which we extend the exchange offer.			
Conditions to the Exchange Offer	The exchange offer is not subject to any condition other than that it not violate applicable law or any applicable interpretation of the staff of the SEC. The exchange offer is not conditioned upon any minimum principal amount of private notes being tendered for exchange.			
Procedures for Tendering Private Notes	If you wish to tender your private notes for exchange notes pursuant to the exchange offer you must transmit to Wells Fargo Bank, National Association as exchange agent, on or before the expiration date, either:			
	a computer generated message transmitted through The Depository Trust Company s Automated Tender Offer Program system and received by the exchange agent and forming a part of a confirmation of book-entry transfer in which you acknowledge and agree to be bound by the terms of the letter of transmittal; or			
	a properly completed and duly executed letter of transmittal, which accompanies this prospectus, or a facsimile of the letter of transmittal, together with your private notes and any other required documentation, to the exchange agent at its address listed in this prospectus and on the front cover of the letter of transmittal.			
	If you cannot satisfy either of these procedures on a timely basis, then you should comply with the guaranteed delivery procedures described below. By executing the letter of transmittal, you will make the representations to us described under The Exchange Offer Procedures for Tendering.			
Special Procedures for Beneficial Owners	If you are a beneficial owner whose private notes are registered in the name of a broker, dealer, commercial bank, trust company or other nominee and you wish to tender your private notes in the exchange offer, you should contact the registered holder promptly and instruct the registered holder to tender on your behalf. If you wish to tender on your own behalf, you must either (1) make appropriate arrangements to register ownership of the private notes in your name			

or (2) obtain a properly completed bond power from the registered holder before completing and executing the letter of transmittal and delivering your private notes.

Guaranteed Delivery Procedures	If you wish to tender your private notes and time will not permit the documents required by the letter of transmittal to reach the exchange agent before the expiration date, or the procedure for book-entry transfer cannot be completed on a timely basis, you must tender your private notes according to the guaranteed delivery procedures described in this prospectus under the heading The Exchange Offer Guaranteed Delivery Procedures.
Acceptance of the Private Notes and Delivery of the Exchange Notes	Subject to the satisfaction or waiver of the conditions to the exchange offer, we will accept for exchange any and all private notes which are validly tendered in the exchange offer and not withdrawn before 5:00 p.m., New York City time, on the expiration date.
Withdrawal Rights	You may withdraw the tender of your private notes at any time before 5:00 p.m., New York City time, on the expiration date, by complying with the procedures for withdrawal described in this prospectus under the heading The Exchange Offer Withdrawal of Tenders.
Certain U.S. Federal Tax Considerations	The exchange of notes will not be a taxable event for United States federal income tax purposes. For a discussion of certain federal tax considerations relating to the exchange of notes, see Certain U.S. Federal Income Tax Considerations.
Exchange Agent	Wells Fargo Bank, National Association, the trustee under the indenture governing the notes, is serving as the exchange agent.
Consequences of Failure to Exchange	If you do not exchange your private notes for exchange notes, you will continue to be subject to the restrictions on transfer provided in the private notes and in the indenture governing the private notes. In general, the private notes may not be offered or sold, unless registered under the Securities Act, except pursuant to an exemption from, or in a transaction not subject to, the Securities Act and applicable state securities laws. We do not currently plan to register the private notes under the Securities Act.
Registration Rights Agreement	You are entitled to exchange your private notes for exchange notes with substantially identical terms. This exchange offer satisfies this right. After the exchange offer is completed, you will no longer be entitled to any exchange or registration rights with respect to your private notes.

We explain the exchange offer in greater detail beginning on page 21.

The Exchange Notes

The summary below describes the principal terms of the exchange notes. Certain of the terms and conditions described below are subject to important limitations and exceptions. The Description of Notes section of this prospectus contains a more detailed description of the terms of the exchange notes.

The form and terms of the exchange notes are the same as the form and terms of the private notes, except that the exchange notes will be registered under the Securities Act and, therefore, the exchange notes will not be subject to the transfer restrictions, registration rights and provisions providing for an increase in the interest rate applicable to the private notes. The exchange notes will evidence the same debt as the private notes and are governed by the same indenture as the private notes.

Issuer	Bio-Rad Laboratories, Inc.
Notes Offered	\$225.0 million aggregate principal amount of 7.50% Senior Subordinated Notes due 2013.
Maturity Date	August 15, 2013.
Interest Payment Dates	February 15 and August 15 of each year, commencing February 15, 2004.
Optional Redemption	We may redeem all or a portion of the notes prior to August 15, 2008 at a price equal to 100% of the principal amount of the notes plus a make-whole premium as set forth in the Description of Notes Redemption Optional Redemption. In addition, we may redeem the notes, in whole or in part, at our option at any time on or after August 15, 2008, at the redemption prices listed in the Description of Notes Redemption Optional Redemption.
	On or before August 15, 2006, we may, at our option and subject to certain requirements, use the net proceeds from one or more qualified equity offerings to redeem up to 35% of the original aggregate principal amount of the notes at 107.50% of the principal amount of the notes, plus accrued and unpaid interest. See Description of Notes Redemption Optional Redemption.
Sinking Fund	None.
Subordination	The notes rank junior to all of our existing and future senior indebtedness, rank <i>pari passu</i> with any future senior subordinated indebtedness, and rank senior to any future indebtedness that is expressly subordinated to the notes. See Description of Notes Subordination.
	As of June 30, 2003, assuming that the offering of the private notes and the application of the net proceeds therefrom had been completed by that date, the notes would not have been subordinated in right of payment to any of our outstanding indebtedness.

Future Guarantees	None of our subsidiaries were guarantors upon issuance of the private notes. The indenture governing the notes requires all of our existing and future domestic subsidiaries (other than immaterial domestic subsidiaries, as defined for purposes of the guarantee provisions of the indenture) to guarantee the notes on a senior subordinated basis. Our foreign subsidiaries are not required to guarantee the notes. For more details, see the section Description of Notes under the heading Certain Covenants Future Guarantors.
Change of Control	If we experience a change of control, we may be required to make an offer to purchase the notes at 101% of their principal amount, plus accrued and unpaid interest. See Description of Notes Certain Covenants Repurchase of Notes at the Option of the Holder Upon a Change of Control.
Certain Covenants	The indenture governing the notes contains certain covenants that, among other things, limit our ability and the ability of some of our subsidiaries to:
	incur additional debt;
	create liens;
	make investments;
	enter into transactions with affiliates;
	sell assets;
	in the case of some of our subsidiaries, guarantee debt;
	incur debt that is expressly senior to the notes and subordinate to any of our other debt;
	declare or pay dividends, redeem stock or make other distributions to shareholders; and
	concolidate or marge

consolidate or merge.

These covenants are subject to a number of important qualifications and limitations. See Description of Notes.

During any period in which the notes are assigned investment grade ratings from both Standard & Poor's Rating Service and Moody's Investors Service, Inc., and no event of default (as defined for purposes of the indenture) has occurred and is continuing, some of the covenants described above will not apply. If either ratings agency subsequently assign a non-investment grade rating to the notes, the covenants will again apply.

Use of Proceeds

We will not receive any cash proceeds from the exchange offer.

We explain the exchange notes in greater detail beginning on page 59.

Risk Factors

You should carefully consider all of the information in this prospectus. In particular, for a discussion of some specific factors that you should consider in evaluating an investment in the notes, see Risk Factors beginning on page 12.

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Summary Consolidated Financial and Other Data

(in thousands, except per share data)

The summary income statement data and balance sheet data presented below for the years ended December 31, 2002, 2001, and 2000 and as of December 31, 2002 and 2001, are derived from Bio-Rad s consolidated financial statements, audited for the years 2000 and 2001 by the independent auditors Arthur Andersen LLP, who have ceased operations, and for the year 2002 by the independent auditors Deloitte and Touche LLP, and should be read in conjunction with Bio-Rad s audited financial statements and notes thereto included elsewhere in this prospectus. The summary balance sheet data presented below as of December 31, 2000 is derived from Bio-Rad s audited consolidated balance sheet not included in this prospectus. The summary income statement data and balance sheet data for the six months ended and as of June 30, 2003 and 2002 and for the twelve months ended and as of June 30, 2003, are derived from unaudited financial statements. In the opinion of our management, the unaudited consolidated financial data presented below provide all adjustments, which include only normal recurring adjustments, necessary for a fair presentation of the results of operations for the periods specified. Such results, however, are not necessarily indicative of the results which may be expected for the full fiscal year. The following information should be read in conjunction with the section Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements included in this prospectus.

	Year Ended December 31,		Six Months Ended June 30,		
	2000	2001	2002	2002	2003
Income Statement Data:					
Net sales	\$ 725,884	\$ 817,509	\$ 892,720	\$ 424,842	\$ 489,476
Cost of goods sold	348,450	362,140	383,235	181,228	210,359
Gross profit	377,434	455,369	509,485	243,614	279,117
Selling, general and administrative expense	245,866	264,745	289,175	135,222	156,185
Product research and development expense	68,140	76,543	82,935	40,047	44,119
Goodwill amortization(1)	8,109	7,746			
Loss (gain) on divestitures(2)	(21,845)	5,150			
Interest expense	30,612	24,088	28,207	11,536	8,347
Foreign exchange losses (gains)	420	2,097	5,441	2,809	1,323
Other (income) and expense, net	689	10,031	(678)	962	(1,484)
Income before taxes and cumulative effect of change in accounting principle	45,443	64,969	104,405	53,038	70,627
Provision for income taxes	(13,633)	(20,790)	(36,542)	(18,033)	(23,307)
Income before cumulative effect of change in accounting principle	31,810	44,179	67,863	35,005	47,320
Cumulative effect of change in accounting principle(3)	(710)				
Net income	\$ 31,100	\$ 44,179	\$ 67,863	\$ 35,005	\$ 47,320
Diluted earnings per share(3)(4)	\$ 1.27	\$ 1.74	\$ 2.61	\$ 1.35	\$ 1.81
Cash dividends paid per common share					
Other Financial Data:					
EBITDA(5)	\$ 119,364	\$ 130,369	\$ 170,645	\$ 81,914	\$ 99,469
Depreciation and amortization	\$ 43,309	\$ 41,312	\$ 38,033	\$ 17,340	\$ 20,495
Capital expenditures, net	\$ 31,406	\$ 43,228	\$ 42,224	\$ 18,974	\$ 25,368
Ratio of earnings to fixed charges(6)	2.3x	3.2x	4.0x	4.9x	6.7x
Ratio of EBITDA to interest expense(5)	3.9x	5.4x	6.0x	7.1x	11.9x
Ratio of total debt to EBITDA(5)	1.9x	1.5x	0.7x		

Balance Sheet Data (at period end):					
Cash	\$ 13,954	\$ 47,129	\$ 27,733	\$ 25,655	\$ 28,828
Total assets	\$ 646,278	\$ 684,028	\$ 720,703	\$ 704,124	\$ 775,370
Long-term debt, net of current maturities	\$ 203,360	\$ 188,423	\$ 105,768	\$ 149,417	\$ 98,940
Total debt	\$ 221,506	\$ 198,354	\$ 113,254	\$ 160,573	\$ 112,345
Stockholders equity	\$ 244,618	\$ 283,877	\$ 383,087	\$ 340,914	\$ 448,594

- (1) In 2002, Statement of Financial Accounting Standards (SFAS) No. 142, Goodwill and Other Intangible Assets became effective. We adopted SFAS No. 142 and ceased to amortize approximately \$77.7 million of goodwill. We had recorded approximately \$7.7 million and \$8.1 million of amortization of these amounts during 2001 and 2000, respectively. In lieu of amortization, we were required to perform an initial impairment review of goodwill in 2002 and an annual impairment review thereafter. We did not record an impairment charge upon completion of the initial impairment review. However, there can be no assurance that a material impairment charge will not be recorded in future periods.
- (2) In 2000, we experienced a gain of \$21.8 million on sale of the assets and certain liabilities of our semiconductor and optoelectronic metrology business. In 2001, we experienced a loss of \$5.2 million on sale of the assets and certain liabilities of our spectroscopy business.
- (3) Cumulative effect of accounting changes per SEC Staff Accounting Bulletin 101, on Revenue Recognition.
- (4) Restated to give effect to a two-for-one stock split in the form of a 100% stock dividend in 2002.
- (5) EBITDA is a non-GAAP financial measure which represents net income (or loss) plus interest expense, income taxes, depreciation and amortization expense. We believe that EBITDA is now and will continue to be a financial measure of interest to the lending community. We believe that EBITDA is generally used as a measure of a company s ability to meet cash needs. EBITDA is not intended to be a liquidity measure that should be regarded as an alternative to, or more meaningful than, cash flows from operating activities, or as a measure of liquidity determined in accordance with GAAP. The definition we use for EBITDA is not necessarily comparable to similarly titled amounts of other companies. The following table reconciles the differences between net cash provided by operating activities (a GAAP financial measure) and EBITDA:

	Year	Ended Decemb	Six Months Ended June 30,		
	2000	2001	2002	2002	2003
Cash flows provided by operating activities	\$ 24,247	\$ 99,495	\$ 104,835	\$ 37,970	\$ 46,592
Change in operating assets and liabilities	30,109	10,704	20,647	20,482	37,131
Interest expense	30,612	24,088	28,207	11,536	8,347
Current income taxes	13,633	20,790	36,542	18,033	23,307
Change in deferred income taxes	(3,383)	1,679	(12,702)	123	(5,994)
Gain on sale of semiconductor division and fixed assets	21,845				
Loss on sale of spectroscopy business and write-down					
of investments		(15,380)	(5,007)	(2,000)	
Other expense	1,591	(11,007)	(1,877)	(4,230)	(9,914)
Cumulative effect of change in accounting principle	710				
EBITDA	\$ 119,364	\$ 130,369	\$ 170,645	\$81,914	\$ 99,469

(6) For purposes of calculating this ratio, earnings have been computed by adding to pre-tax earnings the fixed charges. Fixed charges include interest, amortization of debt premium/discount and expense and a portion of rental expense deemed to be representative of the interest factor.

RISK FACTORS

You should carefully consider the risk factors set forth below as well as the other information contained in this prospectus before making a decision to tender your private notes in the exchange offer. The risk factors set forth below are generally applicable to the private notes as well as the exchange notes. The risks described below are not the only risks facing us. Additional risks and uncertainties not currently known to us or those we currently deem to be immaterial may also materially and adversely affect our business, financial condition or results of operations.

Risks Related to Our Business

The industries and market segments in which we operate are highly competitive, and we may not be able to compete effectively with larger companies with greater financial resources than we have.

The life science and clinical diagnostics markets are each highly competitive. Some of our competitors have greater financial resources than we do and are less leveraged than we are, making them better equipped to license technologies and intellectual property from third parties or to fund research and development, manufacturing and marketing efforts. Moreover, competitive and regulatory conditions in many markets in which we operate restrict our ability to fully recover through price increases higher costs of acquired goods and services resulting from inflation and other drivers of cost increases. Our competitors can be expected to continue to improve the design and performance of their products and to introduce new products with competitive price and performance characteristics. Although we believe that we have certain technological and other advantages over our competitors, maintaining these advantages will require us to continue to invest in research and development, sales and marketing and customer service and support. We cannot assure you that we will have sufficient resources to continue to make such investments or that we will be successful in maintaining such advantages. For more details, see the section Business Competition.

We have significant international operations which subject us to various foreign risks such as general economic and market conditions in the countries in which we operate.

A significant portion of our sales are made outside of the United States. Our foreign subsidiaries generated 64% of our net sales in the year ended December 31, 2002. Our international operations are subject to risks common to foreign operations, such as general economic and market conditions in the countries in which we operate, changes in governmental regulations, political instability, import restrictions and currency exchange rate risks. Although we enter into forward foreign exchange contracts to hedge against future movements in foreign exchange rates that affect our intercompany receivables and payables denominated in foreign currencies, we cannot assure you that shifts in currency exchange rates will not have a material adverse effect on our operating results and financial condition.

We are dependent on government funding and the capital spending policies of our customers, and the effect of potential healthcare reform on government funding and our customers ability to purchase our products is uncertain.

Our customers include universities, clinical diagnostics laboratories, government agencies, hospitals and pharmaceutical, biotechnology and chemical companies. The capital spending policies of these institutions and companies have a significant effect on the demand for our products. Such policies are based on a wide variety of factors, including the resources available to make such purchases, the availability of funding from grants by governments or government agencies, the spending priorities among various types of equipment and the policies regarding capital expenditures during industry downturns or recessionary periods. If government funding to our customers were to decrease, or if our customers

were to decrease or reallocate in a manner adverse to us their capital spending budgets, our business, financial condition or results of operations could be materially adversely affected.

Healthcare reform and the growth of managed care organizations have been and continue to be significant factors in the clinical diagnostics market. The trend towards managed care, together with efforts to reform the healthcare delivery system in the U.S. and Europe, has resulted in increased pressure on healthcare providers and other participants in the healthcare industry to reduce costs. Consolidation among healthcare providers has resulted in fewer, more powerful groups, whose purchasing power gives them cost containment leverage. These competitive forces place constraints on the levels of overall pricing, and thus could have a material adverse effect on our profit margins for products we sell in clinical diagnostics markets. To the extent that the healthcare industry seeks to address the need to contain costs by limiting the number of clinical tests being performed, our results of operations could be materially and adversely affected. If these changes in the United States and European healthcare markets continue, we could be forced to alter our approach in selling, marketing, distributing and servicing our products. For more details, see the section Business Regulatory Matters.

We derive a significant portion of our profits from our tests for mad cow disease.

A significant portion of our revenues and profits derive from the sale of our tests for Bovine Spongiform Encephalopathy (BSE or mad cow disease). We believe that there are only three other competitors that offer BSE tests approved by regulatory authorities in Europe and Japan. However, our BSE tests have limited patent protection. Should a competitor successfully produce a competing product and obtain regulatory approval for such competing product (which we estimate would take approximately 18 months to two years to obtain), we may have to lower prices for or reduce sales of our BSE tests. Further, government subsidies have supported purchases by our customers of BSE tests. If governments in our key markets cease or substantially reduce the subsidies provided, we may have to lower prices for or reduce sales of our BSE tests. Finally, if the threat to world food supply from BSE was materially reduced, either through eradication of BSE or otherwise, sales of BSE tests would materially decline. If any of these events were to occur, it could have a material negative impact on our financial condition or results of operations.

Our failure to improve our product offerings and develop and introduce new products may negatively impact our business.

Our future success depends on our ability to continue to improve our product offerings and develop and introduce new product lines and extensions that integrate new technological advances. If we are unable to integrate technological advances into our product offerings or to design, develop, manufacture and market new product lines and extensions successfully and in a timely manner, our operating results will be adversely affected. While we expect to continue to invest in research and development for all of our market segments, we cannot assure you that our product and process development efforts will be successful or that new products we introduce will achieve market acceptance.

If we experience a disruption of our information technology systems, or if we fail to successfully manage and integrate our information technology and reporting systems, it could harm our business.

Our information technology (IT) systems are an integral part of our business, and a serious disruption of our IT systems could have a material adverse effect on our business and results of operations. We depend on our IT systems to process orders and manage inventory and accounts receivable collections. Our IT systems also allow us to efficiently purchase products from our suppliers and ship products to our customers on a timely basis, maintain cost-effective operations and provide customer service. While we have contingency plans in place in case of an emergency, we cannot assure you that the plans will allow us to operate at our current level of efficiency.

Our ability to implement our business plan in a rapidly evolving market requires an effective planning, reporting and management process. We expect that we will need to continue to improve and further integrate our IT systems, reporting systems and procedures and train and educate our employees with respect to these improvements and integrations on an ongoing basis in order to effectively run our business. If we fail to

successfully manage and integrate our IT and reporting systems, it could adversely affect our business or operating results.

Risks relating to intellectual property rights may negatively impact our business.

We rely on a combination of copyright, trade secret, patent and trademark laws and third-party nondisclosure agreements to protect our intellectual property rights and products. However, we cannot assure you that our intellectual property rights will not be challenged, invalidated, circumvented or rendered unenforceable, or that meaningful protection or adequate remedies will be available to us. For instance, it may be possible for unauthorized third parties to copy our intellectual property, to reverse engineer or obtain and use information that we regard as proprietary, or to develop equivalent technologies independently. Additionally, third parties may assert exclusive patent, copyright and other intellectual property rights to technologies that are important to us. If we are unable to license or otherwise access protected technology used in our products, or if we lose our rights under any existing licenses, we could be prohibited from manufacturing and marketing such products. We may find it necessary to enforce our patents or other intellectual property rights or to defend ourselves against claimed infringement of the rights of others through litigation, which could result in substantial costs to us and divert our resources. We also could incur substantial costs to redesign our products, to defend any legal action taken against us or to pay damages to an infringed party. The foregoing matters could adversely impact our business.

We are subject to substantial government regulation.

Some of our products (primarily diagnostic products), production processes and our marketing are subject to federal, state, local and foreign regulation, including the U.S. Food and Drug Administration (FDA) and its foreign counterparts. We are also subject to government regulation of the use and handling of a number of materials and controlled substances. Failure to comply with present or future regulations could result in substantial liability to us, suspension or cessation of our operations, restrictions on our ability to expand at our present locations or require us to make significant capital expenditures or incur other significant expenses.

We are currently subject to environmental regulations and enforcement proceedings.

Our operations are subject to federal, state, local and foreign environmental laws and regulations that govern such activities as emissions to air and discharges to water, as well as handling and disposal practices for solid, hazardous and medical wastes. In addition to environmental laws that regulate our operations, we are also subject to environmental laws and regulations that create liability and clean-up responsibility for spills, disposals or other releases of hazardous substances into the environment as a result of our operations or otherwise impacting real property that we own or operate. The environmental laws and regulations also subject us to claims by third parties for damages resulting from any spills, disposals or releases resulting from our operations or at any of our properties.

We will in the future incur capital and operating costs to comply with currently existing laws and regulations, and possible new statutory enactments, and these expenditures may be significant. We have incurred, and may in the future incur, fines related to environmental matters and liability for costs or damages related to spills or other releases of hazardous substances into the environment at sites where we have operated, or at off-site locations where we have sent hazardous substances for disposal. In that regard, we currently are investigating soil and groundwater contamination at one of our properties under the oversight of a state agency. Based on the currently available information, we believe that the costs to clean up this contamination will not have a material adverse effect on the future results of our operations or our financial condition. We can provide no assurance, however, that such matters or any future obligations to comply with environmental laws and regulations will not have a material impact on our operations or financial condition.

We have not designated a specific use for a significant portion of the proceeds we received from the offering of the private notes.

We received approximately \$220.1 million in net proceeds from the offering of the private notes that we may use for general corporate purposes, including, among other things, acquisitions. As part of our overall

business strategy, we pursue acquisitions of and investments in complementary companies, products and technologies. We are evaluating a number of acquisitions on a preliminary basis, but it is not certain that any of these transactions will advance beyond the preliminary stages or be completed. As a result, holders of the notes face the possibility that we might ultimately have a risk profile which differs materially from that which we have now. Holders will not have the opportunity to reassess their investment in the notes prior to our engaging in such transactions. See Use of Proceeds.

We cannot assure you that we will be able to integrate acquired companies, products or technologies into our company successfully.

As part of our overall business strategy, we pursue acquisitions of and investments in complementary companies, products and technologies. In order to be successful in these activities, we must, among other things:

assimilate the operations and personnel of acquired companies;

minimize potential disruption to our ongoing business;

retain key technical and management personnel;

integrate acquired companies into our strategic and financial plans;

accurately assess the value of target companies, products and technologies;

harmonize standards, controls, procedures and policies; and

minimize the impairment of our relationships with our employees and customers.

The benefits of any acquisition may prove to be less than anticipated and may not outweigh the costs reported in our financial statements. Completing any potential future acquisition could cause significant diversion of our management s time and resources. If we acquire new companies, products or technologies, we may be required to assume contingent liabilities and record impairment charges for goodwill and other intangible assets over time. We cannot assure you that we will successfully overcome these risks or any other problems we encounter in connection with any acquisitions, and any such acquisitions could adversely affect our business, financial position or operating results.

Loss of key personnel could hurt our business.

Our products and services are highly technical in nature. In general, only highly qualified and trained scientists have the necessary skills to develop and market our products and provide our services. In addition, some of our manufacturing positions are highly technical. We face intense competition for these professionals from our competitors, customers, marketing partners and other companies throughout our industry. We generally do not enter into employment agreements requiring these employees to continue in our employment for any period of time. Any

failure on our part to hire, train and retain a sufficient number of qualified personnel could seriously damage our business. Additionally, if we were to lose a sufficient number of our research and development scientists and were unable to replace them or satisfy our needs for research and development through outsourcing, it could adversely affect our business.

A significant majority of our voting stock is held by the Schwartz family, which could lead to conflicts of interest.

We have two classes of voting stock, Class A Common Stock and Class B Common Stock. With a few exceptions, holders of Class A and Class B Common Stock vote as a single class. When voting as a single class, each share of Class A Common Stock is entitled to one-tenth of a vote, while each share of Class B Common Stock has one vote. In the election or removal of directors, the classes vote separately and the holders of Class A Common Stock are entitled to elect 25% of the Board of Directors, with holders of Class B Common Stock electing the remaining directors.

As of August 31, 2003 the Schwartz family collectively held approximately 17% of our Class A Common Stock and 88% of our Class B Common Stock. As a result, the Schwartz family is able to elect a majority of the directors, effect fundamental changes in our direction and control matters affecting us, including the allocation of business opportunities that may be suitable for our company. In addition, this concentration of ownership and voting power may have the effect of delaying or preventing a change in control of our company.

The Schwartz family may exercise its control over us according to interests that are different from your interests as a holder of the notes. For example, the Schwartz family could pursue transactions that in its judgment enhance the value of the Schwartz family s equity investment that involve risks to holders of the notes.

Our former use of Arthur Andersen LLP as our independent public accountants will limit your ability to seek recovery from them related to their work and may pose a risk to us.

In June 2002, Arthur Andersen LLP was convicted of federal obstruction of justice charges in connection with its destruction of documents related to Enron Corp. As a result of Arthur Andersen s conviction, Arthur Andersen is no longer in a position to reissue their audit reports or to provide consents to include financial statements reported on by them in this prospectus.

The reports covering our financial statements for our 2000 and 2001 fiscal years were previously issued by Arthur Andersen and have not been reissued by them. Because Arthur Andersen has not reissued their reports and because we are unable to obtain a consent from Arthur Andersen, after consummation of the exchange offer you will be unable to sue Arthur Andersen under Section 11 of the Securities Act or otherwise for material misstatements or omissions, if any, in this prospectus, including the financial statements covered by their previously issued reports. We believe that it is unlikely that you would be able to recover damages from Arthur Andersen for any such claim against them.

Terrorist attacks or acts of war may cause damage or disruption to us and our employees, facilities, information systems, security systems, vendors and customers, which could significantly impact our net sales, costs and expenses, and financial condition.

Terrorist attacks, such as those that occurred on September 11, 2001, have contributed to economic instability in the United States, and further acts of terrorism, bioterrorism, violence or war could affect the markets in which we operate, our business operations, our expectations and other forward-looking statements contained or incorporated in this prospectus.

The threat of terrorist attacks in the United States since September 11, 2001 continues to create many economic and political uncertainties. The potential for future terrorist attacks, the United States and international responses to terrorist attacks, and other acts of war or hostility, including the war in Iraq, may cause greater uncertainty and cause our business to suffer in ways that we cannot currently predict. Events such as those referred to above could cause or contribute to a general decline in investment valuations, which in turn could reduce the market value of your investment in the notes. In addition, terrorist attacks, particularly acts of bioterrorism that directly impact our physical facilities or those of our suppliers or customers could have an impact on our sales, supply chain, production capability and costs and our ability to deliver our products to our customers.

Risks Related to Our Indebtedness

We have substantial debt and have the ability to incur additional debt. The principal and interest payment obligations of such debt may restrict our future operations and impair our ability to meet our obligations under the notes.

As of June 30, 2003 assuming the offering of the private notes and the related transactions and the application of the net proceeds therefrom as described under Use of Proceeds had been completed by that date,

we and our subsidiaries would have had approximately \$238.6 million of outstanding indebtedness. In addition, the indenture governing the notes permits us to incur additional debt provided we comply with the limitation on the incurrence of additional indebtedness and disqualified capital stock covenant contained in the indenture. See Description of Notes.

The following chart shows certain important credit statistics and is presented assuming we had completed the offering of the private notes and the related transactions as of June 30, 2003.

At June 30, 2003,

as adjusted for the offering

	 of the private notes (in thousands)
Total debt	\$ 238,563
Stockholders equity	\$ 439,651
Debt to equity ratio	0.5x

The incurrence of substantial amounts of debt may have important consequences to you. For instance, it could:

make it more difficult for us to satisfy our financial obligations, including those relating to the notes;

require us to dedicate a substantial portion of our cash flow from operations to the payment of interest and principal due under our debt, including the notes, which will reduce funds available for other business purposes;

increase our vulnerability to general adverse economic and industry conditions;

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

place us at a competitive disadvantage compared with some of our competitors that have less debt; and

limit our ability to obtain additional financing required to fund working capital and capital expenditures and for other general corporate purposes.

Our ability to satisfy our obligations and to reduce our total debt depends on our future operating performance and on economic, financial, competitive and other factors, many of which are beyond our control. Our business may not generate sufficient cash flow, and future financings may not be available to provide sufficient net proceeds, to meet these obligations or to successfully execute our business strategy.

The agreements governing the notes and our other debt impose restrictions on our business.

The indenture governing the notes and our other debt instruments, including without limitation our credit facilities and other agreements we may enter in the future, contain or will contain covenants imposing significant restrictions on our business. These restrictions may affect our ability to operate our business and may limit our ability to take advantage of potential business opportunities as they arise. These covenants place restrictions on our ability to, among other things:

incur additional debt;

create liens;

make investments;

enter into transactions with affiliates;

sell assets;

in the case of some of our subsidiaries, guarantee debt;

declare or pay dividends, redeem stock or make other distributions to shareholders; and

consolidate or merge.

Our new credit facility also requires that we meet certain financial tests and maintain certain financial ratios, including a maximum consolidated leverage ratio test, minimum consolidated interest coverage and a minimum net worth test. See Description of Certain Indebtedness and Description of Notes.

Our ability to comply with these covenants may be affected by events beyond our control, including prevailing economic, financial and industry conditions. The breach of any of these restrictions could result in a default under the indenture governing the notes. An event of default under our debt agreements would permit some of our lenders to declare all amounts borrowed from them to be due and payable, together with accrued and unpaid interest. If we were unable to repay debt to our senior secured lenders, these lenders could proceed against the collateral securing that debt. In addition, acceleration of our other indebtedness may cause us to be unable to make interest payments on the notes and repay the principal amount of the notes or may cause the future subsidiary guarantors, if any, to be unable to make payments under the guarantees.

Risks Related to the Notes

If you do not exchange your notes pursuant to this exchange, you may never be able to sell your notes.

It may be difficult for your to sell notes that are note exchanged in the exchange offer. Those notes may not be offered or sold unless they are registered and there are exemptions from the registration requirements under the Securities Act and applicable state securities laws.

If you do not tender your private notes or if we do not accept some of your private notes, those notes will continue to be subject to the transfer and exchange restrictions in:

the indenture;

the legend on the private notes; and

the offering circular relating to the private notes.

The restrictions on transfer of your private notes arise because we issued the private notes pursuant to an exemption from the registration requirements of the Securities Act and applicable state securities laws. In general, you may only offer or sell the private notes if they are registered under the Securities Act and applicable state securities laws, or offered and sold pursuant to an exemption from such requirements. We do not intend to register the private notes under the Securities Act. To the extent private notes are tendered and accepted in the exchange offer, the trading market, if any, for the private notes would be adversely affected.

The notes are unsecured and subordinated to our senior debt.

The notes rank junior in right of payment to all of our existing and future senior debt. Our senior debt includes all debt that is not expressly subordinated to or ranked *pari passu* with the notes, subject to certain exceptions. The indenture governing the notes requires all of our existing and future domestic subsidiaries (other than immaterial domestic subsidiaries, as defined for purposes of the guarantee provisions of the indenture) to guarantee the notes on a senior subordinated basis. As of the date hereof, all of our domestic subsidiaries are immaterial subsidiaries. The private notes were not guaranteed by any of our subsidiaries on the date the private notes were issued, and we expect that the exchange notes will not be guaranteed by any of our subsidiaries on the date the exchange notes are issued. Our foreign subsidiaries are not required to guarantee the notes. Any such future guarantees, if any, will be subordinated to all existing and future obligations and liabilities of the guarantors that rank senior to the guarantees. In addition, the notes are not secured by any of our assets or any assets of our subsidiaries. As a result, the notes are effectively subordinated to all of our and our subsidiaries

secured indebtedness to the extent of the value of the assets securing such indebtedness. As of June 30, 2003, assuming the offering of the private notes and the application of the proceeds therefrom had been completed by that date, we would have had no senior debt outstanding.

In addition, the notes are effectively subordinated to all existing and future indebtedness of our subsidiaries, which, as of June 30, 2003 (after giving effect to the offering of the private notes and the application of the net proceeds therefrom) would have been \$13.6 million.

You may not be fully repaid on your notes if we or any future guarantor are declared bankrupt, become insolvent, are liquidated or reorganized, default on payment under senior debt or commit a default causing the acceleration of the maturity of our debt. In such a case, holders of any debt that ranks senior to the notes will be entitled to be paid in full from our assets and the assets of our subsidiaries before any payment may be made with respect to the notes or the guarantees. As a result, we may not have sufficient assets to fully repay the notes. An event of default under our senior debt also may prohibit us and any future guarantors of the notes from paying the obligations under the notes or the guarantees.

Our ability to repay the notes and other debt depends in part on cash flow from our subsidiaries.

Substantially all of our active subsidiaries operate overseas. Our foreign subsidiaries generated approximately 64% of our net sales in the year ended December 31, 2002, and held approximately 42% of our consolidated assets as of June 30, 2003. Consequently, we depend in part on distributions or other intercompany transfers of funds from our subsidiaries to meet our debt service and other obligations, including with respect to the notes. Our subsidiaries are not obligated to make funds available to us for payment on the notes, so long as they do not become guarantors. In addition, distributions and intercompany transfers to us from our subsidiaries will depend on:

their earnings;

covenants contained in their debt agreements;

covenants contained in other agreements to which our subsidiaries are or may become subject;

business and tax considerations; and

applicable law.

We cannot assure you that the operating results of our subsidiaries at any given time will be sufficient to make distributions or other payments to us and that these distributions and/or payments will be adequate to pay principal and interest on the notes when due. In addition, our rights and the rights of our creditors, including holders of the notes, to participate in the assets of any of our subsidiaries that are not guarantors upon their liquidation or recapitalization will generally be subject to the prior claims of the subsidiaries creditors.

Our new credit facility grants to the lenders security interests in the capital stock of certain of our subsidiaries. As a result, if an event of default occurs under our credit facility, the lenders would be able to exercise certain remedies with respect to that capital stock which would have the effect of giving the lenders control over those subsidiaries and their assets.

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We may be unable to purchase the notes upon a change in control.

Upon the occurrence of a change of control, as defined in the indenture governing the notes, we are required to offer to purchase the notes in cash at a price equal to 101% of the principal amount of the notes, plus accrued interest and unpaid liquidated damages, if any. A change in control may constitute an event of default and may trigger similar rights under our other indebtedness then outstanding. In the event of a change in control, we may not have sufficient funds to purchase all of the notes and to repay the amounts outstanding under our credit

facilities or other indebtedness. Further, payment of the purchase price of the notes will be subordinated to the prior payment of our senior indebtedness.

There is no public market for the notes, and we cannot be sure that a market for the notes will develop.

The exchange notes are a new issue of securities for which there is no active trading market. The initial purchasers of the private notes have advised us that they presently intend to make a market in the exchange notes as permitted by applicable law. The initial purchasers are not obligated, however, to make a market in the exchange notes and any such market-making may be discontinued at any time at the sole discretion of the initial purchasers. In addition, the liquidity of the trading market in the notes and the market prices quoted for the notes may be adversely affected by changes in the overall market for high-yield securities. As a result, you cannot be sure that an active trading market will develop for the exchange notes.

Volatile trading prices may require you to hold the notes for an indefinite period of time.

If a market develops for the exchange notes, the exchange notes might trade at prices higher or lower than the initial offering price of the private notes. The trading price would depend on many factors, such as prevailing interest rates, the market for similar securities, general economic conditions and our financial condition, performance and prospects. Historically, the market for non-investment grade debt has been subject to disruptions that have caused substantial fluctuation in the prices of these securities. The market for the exchange notes may be subject to such disruptions, which could have an adverse effect on the price of the exchange notes. You should be aware that you may be required to bear the financial risk of an investment in the notes for an indefinite period of time.

THE EXCHANGE OFFER

Purpose of the Exchange Offer

We issued \$225.0 million of the private notes on August 11, 2003 to Goldman, Sachs & Co., Credit Suisse First Boston LLC, Bank One Capital Markets, Inc., Deutsche Bank Securities Inc., Robert W. Baird & Co. Incorporated, ABN AMRO Incorporated, BNP Paribas Securities Corp., Comerica Securities, Inc., Tokyo-Mitsubishi International plc, U.S. Bancorp Piper Jaffray Inc., and Wells Fargo Securities, LLC, the initial purchasers, pursuant to a purchase agreement. The initial purchasers subsequently sold the private notes to qualified institutional buyers, as defined in Rule 144A under the Securities Act, in reliance on Rule 144A, and outside the United States under Regulation S of the Securities Act. As a condition to the sale of the private notes, we entered into a registration rights agreement with the initial purchasers on August 11, 2003. Pursuant to the registration rights agreement, we agreed that we would:

- (1) file an exchange offer registration statement with the SEC on or prior to November 9, 2003;
- use our reasonable best efforts to have the exchange offer registration statement declared effective by the SEC on or prior to March 8, 2004;
- (3) keep the exchange offer open for a period of not less than the minimum period required under applicable law, but in no event for less than 20 business days; and
- (4) consummate the exchange offer within 45 days after the exchange offer registration statement is declared effective.

Upon the effectiveness of the exchange offer registration statement, we will offer the exchange notes in exchange for the private notes. A copy of the registration rights agreement is filed as an exhibit to the registration statement of which this prospectus forms a part.

Resale of the Exchange Notes

Based upon an interpretation by the staff of the SEC contained in no-action letters issued to third parties, we believe that you may exchange private notes for exchange notes in the ordinary course of business. For further information on the SEC s position, see *Exxon Capital Holdings Corporation*, available May 13, 1988, *Morgan Stanley & Co. Incorporated*, available June 5, 1991 and *Shearman & Sterling*, available July 2, 1993, and other interpretive letters to similar effect. You will be allowed to resell exchange notes to the public without further registration under the Securities Act and without delivering to purchasers of the exchange notes a prospectus that satisfies the requirements of Section 10 of the Securities Act so long as you do not participate, do not intend to participate, and have no arrangement with any person to participate, in a distribution of the exchange notes. However, the foregoing does not apply to you if you are: a broker-dealer who purchased the exchange notes directly from us to resell pursuant to Rule 144A or any other available exemption under the Securities Act; or you are an affiliate of ours within the meaning of Rule 405 under the Securities Act.

In addition, if you are a broker-dealer, or you acquire exchange notes in the exchange offer for the purpose of distributing or participating in the distribution of the exchange notes, you cannot rely on the position of the staff of the SEC contained in the no-action letters mentioned above and must comply with the registration and prospectus delivery requirements of the Securities Act in connection with any resale transaction, unless an

exemption from registration is otherwise available.

Each broker-dealer that receives exchange notes for its own account in exchange for private notes, which the broker-dealer acquired as a result of market-making activities or other trading activities, must acknowledge that it will deliver a prospectus in connection with any resale of the exchange notes. The letter of transmittal states that by so acknowledging and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an underwriter within the meaning of the Securities Act. A broker-dealer may use this prospectus, as it may be

amended or supplemented from time to time, in connection with resales of exchange notes received in exchange for private notes which the brokerdealer acquired as a result of market-making or other trading activities.

Terms of the Exchange Offer

Upon the terms and subject to the conditions described in this prospectus and in the letter of transmittal, we will accept any and all private notes validly tendered and not withdrawn before the expiration date. We will issue \$1,000 principal amount of exchange notes in exchange for each \$1,000 principal amount of outstanding private notes surrendered pursuant to the exchange offer. You may tender private notes only in integral multiples of \$1,000.

The form and terms of the exchange notes are the same as the form and terms of the private notes except that:

we will register the exchange notes under the Securities Act and, therefore, the exchange notes will not bear legends restricting their transfer; and

holders of the exchange notes will not be entitled to any of the rights of holders of private notes under the registration rights agreement, which rights will terminate upon the completion of the exchange offer.

The exchange notes will evidence the same debt as the private notes and will be issued under the same indenture, so the exchange notes and the private notes will be treated as a single class of debt securities under the indenture.

As of the date of this prospectus, \$225,000,000 in aggregate principal amount of the private notes are outstanding and registered in the name of Cede & Co., as nominee for The Depository Trust Company. Only registered holders of the private notes, or their legal representative or attorney-in-fact, as reflected on the records of the trustee under the indenture, may participate in the exchange offer. We will not set a fixed record date for determining registered holders of the private notes entitled to participate in the exchange offer.

You do not have any appraisal or dissenters rights under the indenture in connection with the exchange offer. We intend to conduct the exchange offer in accordance with the provisions of the registration rights agreement and the applicable requirements of the Securities Act, the Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC.

We will be deemed to have accepted validly tendered private notes when, as and if we had given oral or written notice of acceptance to the exchange agent. The exchange agent will act as your agent for the purposes of receiving the exchange notes from us.

If you tender private notes in the exchange offer you will not be required to pay brokerage commissions or fees or, subject to the instructions in the letter of transmittal, transfer taxes with respect to the exchange of private notes pursuant to the exchange offer. We will pay all charges and expenses, other than the applicable taxes described below, in connection with the exchange offer.

Expiration Date; Extensions; Amendments

The term expiration date will mean 5:00 p.m., New York City time on , 2003, unless we, in our sole discretion, extend the exchange offer, in which case the term expiration date will mean the latest date and time to which we extend the exchange offer.

To extend the exchange offer, we will:

notify the exchange agent of any extension orally or in writing; and

mail to each registered holder an announcement that will include disclosure of the approximate number of private notes deposited to date,

each before 9:00 a.m., New York City time, on the next business day after the previously scheduled expiration date.

We reserve the right, in our reasonable discretion:

to delay accepting any private notes:

to extend the exchange offer; or

if any conditions listed below under Conditions are not satisfied, to terminate the exchange offer by giving oral or written notice of the delay, extension or termination to the exchange agent.

We will follow any delay in acceptance, extension or termination as promptly as practicable by oral or written notice to the registered holders. If we amend the exchange offer in a manner we determine constitutes a material change, we will promptly disclose the amendment in a prospectus supplement that we will distribute to the registered holders. We will also extend the exchange offer for a period of five to ten business days, depending upon the significance of the amendment and the manner of disclosure, if the exchange offer would otherwise expire during the five to ten business day period.

Interest on the Exchange Notes

The exchange notes will bear interest at the same rate and on the same terms as the private notes. Consequently, the exchange notes will bear interest at a rate equal to 7.50% per annum (calculated using a 360-day year). Interest will be payable semi-annually on each February 15 and August 15, commencing February 15, 2004.

You will receive interest on February 15, 2004 from the date of initial issuance of the exchange notes, plus an amount equal to the accrued interest on the private notes from August 11, 2003 to the date of exchange. We will deem the right to receive any interest accrued on the private notes waived by you if we accept your private notes for exchange.

Procedures for Tendering

You may tender private notes in the exchange offer only if you are a registered holder of private notes. To tender in the exchange offer, you must:

complete, sign and date the letter of transmittal or a facsimile of the letter of transmittal;

have the signatures guaranteed if required by the letter of transmittal; and

mail or otherwise deliver the letter of transmittal or the facsimile to the exchange agent at the address listed below under Agent for receipt before the expiration date.

In addition, either:

the exchange agent must receive certificates for the private notes along with the letter of transmittal into its account at the depositary pursuant to the procedure for book-entry transfer described below before the expiration date;

the exchange agent must receive a timely confirmation of a book-entry transfer of the private notes, if the procedure is available, into its account at the depositary pursuant to the procedure for book-entry transfer described below before the expiration date; or

you must comply with the guaranteed delivery procedures described below.

Your tender, if not withdrawn before the expiration date, will constitute an agreement between you and us in accordance with the terms and subject to the conditions described in this prospectus and in the letter of transmittal.

The method of delivery of private notes and the letter of transmittal and all other required documents to the exchange agent is at your election and risk. We recommend that instead of delivery by mail, you use an overnight or hand delivery service, properly insured. In all cases, you should allow sufficient time to assure delivery to the exchange agent before the expiration date. You should not send letters of transmittal or private notes to us. You may request your respective brokers, dealers, commercial banks, trust companies or nominees to effect the transactions described above for you.

If you are a beneficial owner of private notes whose private notes are registered in the name of a broker, dealer, commercial bank, trust company or other nominee and you wish to tender your notes, you should contact the registered holder promptly and instruct the registered holder to tender on your behalf. If you wish to tender on your own behalf, before completing and executing the letter of transmittal and delivering the private notes you must either:

make appropriate arrangements to register ownership of the private notes in your name; or

obtain a properly completed bond power from the registered holder.

The transfer of registered ownership may take considerable time. Unless the private notes are tendered:

- (1) by a registered holder who has not completed the box entitled Special Issuance Instructions or the box entitled Special Delivery Instructions on the letter of transmittal; or
- (2) for the account of: a member firm of a registered national securities exchange or of the National Association of Securities Dealers, Inc.; a commercial bank or trust company having an office or correspondent in the United States; or an eligible guarantor institution within the meaning of Rule 17Ad-15 under the Exchange Act that is a member of one of the recognized signature guarantee programs identified in the letter of transmittal,
- an eligible guarantor institution must guarantee the signatures on a letter of transmittal or a notice of withdrawal described below under Withdrawal of Tenders.

If the letter of transmittal is signed by a person other than the registered holder, the private notes must be endorsed or accompanied by a properly completed bond power, signed by the registered holder as the registered holder s name appears on the private notes.

If the letter of transmittal or any private notes or bond powers are signed by trustees, executors, administrators, guardians, attorneys-in-fact, officers of corporations or others acting in a fiduciary or representative capacity, they should so indicate when signing, and unless waived by us,

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they must submit evidence satisfactory to us of their authority to so act with the letter of transmittal.

The exchange agent and the depositary have confirmed that any financial institution that is a participant in the depositary s system may utilize the depositary s Automated Tender Offer Program to tender notes.

We will determine in our sole discretion all questions as to the validity, form, eligibility, including time of receipt, acceptance and withdrawal of tendered private notes, which determination will be final and binding. We reserve the absolute right to reject any and all private notes not properly tendered or any private notes our acceptance of which would, in the opinion of our counsel, be unlawful. We also reserve the right to waive any

defects, irregularities or conditions of tender as to particular private notes. Our interpretation of the terms and conditions of the exchange offer, including the instructions in the letter of transmittal, will be final and binding on all parties. Unless waived, you must cure any defects or irregularities in connection with tenders of private notes within the time we determine. Although we intend to notify you of defects or irregularities with respect to tenders of private notes, neither we, the exchange agent nor any other person will incur any liability for failure to give you that notification. Unless waived, we will not deem tenders of private notes to have been made until you cure the defects or irregularities.

While we have no present plan to acquire any private notes that are not tendered in the exchange offer or to file a registration statement to permit resales of any private notes that are not tendered in the exchange offer, we reserve the right in our sole discretion to purchase or make offers for any private notes that remain outstanding after the expiration date. We also reserve the right to terminate the exchange offer, as described below under Conditions, and, to the extent permitted by applicable law, purchase private notes in the open market, in privately negotiated transactions or otherwise. The terms of any of those purchases or offers could differ from the terms of the exchange offer.

If you wish to tender private notes in exchange for exchange notes in the exchange offer, we will require you to represent that:

you are not an affiliate of ours;

you will acquire any exchange notes in the ordinary course of your business; and

at the time of completion of the exchange offer, you have no arrangement with any person to participate in the distribution of the exchange notes.

In addition, in connection with the resale of exchange notes, any participating broker-dealer who acquired the private notes for its own account as a result of market-making or other trading activities must deliver a prospectus meeting the requirements of the Securities Act. The SEC has taken the position that participating broker-dealers may fulfill their prospectus delivery requirements with respect to the exchange notes, other than a resale of an unsold allotment from the original sale of the notes, with this prospectus.

Return of Notes

If we do not accept any tendered private notes for any reason described in the terms and conditions of the exchange offer or if you withdraw or submit private notes for a greater principal amount than you desire to exchange, we will return the unaccepted, withdrawn or non-exchanged notes without expense to you as promptly as practicable. In the case of private notes tendered by book-entry transfer into the exchange agent s account at the depositary pursuant to the book-entry transfer procedures described below, we will credit the private notes to an account maintained with the depositary as promptly as practicable.

Book Entry Transfer

The exchange agent will make a request to establish an account with respect to the private notes at the depositary for purposes of the exchange offer within two business days after the date of this prospectus, and any financial institution that is a participant in the depositary s systems may make book-entry delivery of private notes by causing the depositary to transfer the private notes into the exchange agent s account at the depositary in accordance with the depositary s procedures for transfer. However, although delivery of private notes may be effected through book-entry transfer at the depositary, you must transmit and the exchange agent must receive, the letter of transmittal or a facsimile of the letter of transmittal, with any required signature guarantees and any

other required documents, at the address below under Exchange Agent on or before the expiration date or pursuant to the guaranteed delivery procedures described below.

Guaranteed Delivery Procedures

If you wish to tender your private notes and (1) the notes are not immediately available or (2) you cannot deliver the private notes, the letter of transmittal or any other required documents to the exchange agent before the expiration date, you may effect a tender if:

- (1) the tender is made through an eligible guarantor institution;
- (2) before the expiration date, the exchange agent receives from the eligible guarantor institution a properly completed and duly executed notice of guaranteed delivery, substantially in the form provided by us, that: states your name and address, the certificate number(s) of the private notes and the principal amount of private notes tendered, states that the, tender is being made by that notice of guaranteed delivery, and guarantees that, within three New York Stock Exchange trading days after the expiration date, the eligible guarantor institution will deposit with the exchange agent the letter of transmittal, together with the certificate(s) representing the private notes in proper form for transfer or a confirmation of a book-entry transfer, as the case may be, and any other documents required by the letter of transmittal; and
- (3) within five New York Stock Exchange trading days after the expiration date, the exchange agent receives a properly executed letter of transmittal, as well as the certificate(s) representing all tendered private notes in proper form for transfer and all other documents required by the letter of transmittal.

Upon request, the exchange agent will send to you a notice of guaranteed delivery if you wish to tender your notes according to the guaranteed delivery procedures described above.

Withdrawal of Tenders

Except as otherwise provided in this prospectus, you may withdraw tenders of private notes at any time before 5:00 p.m. on the expiration date.

To withdraw a tender of private notes in the exchange offer, the exchange agent must receive a written or facsimile transmission notice of withdrawal at its address listed in this prospectus before the expiration date. Any notice of withdrawal must:

specify the name of the person who deposited the private notes to be withdrawn;

identify the private notes to be withdrawn, including the certificate number(s) and principal amount of the private notes; and

be signed in the same manner as the original signature on the letter of transmittal by which the private notes were tendered, including any required signature guarantees.

We will determine in our sole discretion all questions as to the validity, form and eligibility of the notices, and our determination will be final and binding on all parties. We will not deem any properly withdrawn private notes to have been validly tendered for purposes of the exchange offer, and we will not issue exchange notes with respect to those private notes, unless you validly retender the withdrawn private notes. You may retender properly withdrawn private notes by following one of the procedures described above under Procedures for Tendering at any time before the expiration date.

Conditions

Notwithstanding any other term of the exchange offer, we will not be required to accept for exchange, or exchange the exchange notes for, any private notes, and may terminate the exchange offer as provided in this

prospectus before the acceptance of the private notes, if, in our reasonable judgment, the exchange offer violates applicable law, rules or regulations or an applicable interpretation of the staff of the SEC.

If we determine in our reasonable discretion that any of these conditions are not satisfied, we may

refuse to accept any private notes and return all tendered private notes to you;

extend the exchange offer and retain all private notes tendered before the exchange offer expires, subject, however, to your rights to withdraw the private notes; or

waive the unsatisfied conditions with respect to the exchange offer and accept all properly tendered private notes that have not been withdrawn.

If the waiver constitutes a material change to the exchange offer, we will promptly disclose the waiver by means of a prospectus supplement that we will distribute to the registered holders of the private notes, and we will extend the exchange offer for a period of five to ten business days,

depending upon the significance of the waiver and the manner of disclosure to the registered holders, if the exchange offer would otherwise expire during the five to ten business day period.

Termination of Rights

All of your rights under the registration rights agreement will terminate upon consummation of the exchange offer except with respect to our continuing obligations:

to indemnify you and parties related to you against liabilities, including liabilities under the Securities Act; and

to provide, upon your request, the information required by Rule 144A(d)(4) under the Securities Act to permit resales of the notes pursuant to Rule 144A.

Shelf Registration

If:

(1) we are not permitted to consummate the exchange offer because the exchange offer is not permitted by applicable law or SEC policy;

- (2) the exchange offer has not been consummated by April 22, 2004; or
- (3) the exchange offer is not available to any holder of transfer restricted securities,

we will file with the SEC a shelf registration statement to cover resales of the private notes by the holders thereof who satisfy certain conditions relating to the provision of information in connection with the shelf registration statement.

For purposes of the preceding, transfer restricted securities means each private note until:

- (1) the date on which such note has been exchanged by a person other than a broker-dealer for an exchange note in the exchange offer;
- (2) following the exchange by a broker-dealer in the exchange offer of a private note for an exchange note, the date on which such exchange note is sold to a purchaser who receives from such broker-dealer on or prior to the date of such sale a copy of the prospectus contained in the exchange offer registration statement;
- (3) the date on which such private note has been effectively registered under the Securities Act and disposed of in accordance with the shelf registration statement; or
- (4) the date on which such private note is distributed to the public pursuant to Rule 144 under the Securities Act.

Liquidated Damages

If:

- (1) we fail to file any of the registration statements required by the registration rights agreement on or before the date specified for such filing; or
- (2) any of such registration statements is not declared effective by the SEC on or prior to the date specified for such effectiveness; or
- (3) we fail to consummate the exchange offer within 45 days after the exchange offer registration statement is declared effective; or
- (4) the shelf registration statement or the exchange offer registration statement is declared effective but thereafter is withdrawn by us or becomes subject to an effective stop order suspending its effectiveness in connection with resales or exchanges of transfer restricted securities during the periods specified in the registration rights agreement (each such event referred to in clauses (1) through (4) above, a registration default);

then we will pay to each holder of the outstanding notes, as liquidated damages, for the period from the occurrence of the registration default (but only with respect to one registration default at any particular time) until such time as no registration default is in effect an amount per annum equal to 0.25% during the first 90-day period following the occurrence of such registration default which rate shall increase by an additional 0.25% during each subsequent 90-day period, up to a maximum of 1.00% in respect of the aggregate principal amount of transfer restricted securities held by such holder until the applicable registration statement is filed, the exchange offer registration statement is declared effective and the exchange offer is consummated or the shelf registration statement is declared effective or again becomes effective, as the case may be.

Exchange Agent

We have appointed Wells Fargo Bank, National Association as exchange agent for the exchange offer. You should direct questions and requests for assistance, requests for additional copies of this prospectus or the letter of transmittal and requests for a notice of guaranteed delivery to the exchange agent addressed as follows:

By Registered or Certified Mail:

Wells Fargo Bank, National Association 707 Wilshire Boulevard, 17th Floor Los Angeles, California 90017 Attention: Corporate Trust Administration

By Overnight Delivery:

Wells Fargo Bank, National Association 707 Wilshire Boulevard, 17th Floor Los Angeles, California 90017

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By Hand Delivery:

Wells Fargo Bank, National Association 707 Wilshire Boulevard, 17th Floor Los Angeles, California 90017 Attention: Corporate Trust Administration

By Facsimile:

(213) 614-3355 Attention: Corporate Trust Administration *Confirm by Telephone:*

Attention: Corporate Trust Administration

(213) 614-3349

Delivery to an address other than the one stated above or transmission via a facsimile number other than the one stated above will not constitute a valid delivery.

Fees and Expenses

We will bear the expenses of soliciting tenders. We are making the principal solicitation by mail; however, our officers and regular employees may make additional solicitations by facsimile, telephone or in person.

We have not retained any dealer manager in connection with the exchange offer and will not make any payments to brokers, dealers or others soliciting acceptances of the exchange offer. We will, however, pay the exchange agent reasonable and customary fees for its services and will reimburse it for its reasonable out-of-pocket expenses.

We will pay the cash expenses incurred in connection with the exchange offer which we estimate to be approximately \$250,000. These expenses include registration fees, fees and expenses of the exchange agent and the trustee, accounting and legal fees and printing costs, among others.

We will pay all transfer taxes, if any, applicable to the exchange of notes pursuant to the exchange offer. If, however, a transfer tax is imposed for any reason other than the exchange of the private notes pursuant to the exchange offer, then you must pay the amount of the transfer taxes. If you do not submit satisfactory evidence of payment of the taxes or exemption from payment with the letter of transmittal, we will bill the amount of the transfer taxes directly to you.

Consequence of Failures to Exchange

Participation in the exchange offer is voluntary. We urge you to consult your financial and tax advisors in making your decisions on what action to take. Private notes that are not exchanged for exchange notes pursuant to the exchange offer will remain restricted securities. Accordingly, those private notes may be resold only:

to a person whom the seller reasonably believes is a qualified institutional buyer in a transaction meeting the requirements of Rule 144A;

in a transaction meeting the requirements of Rule 144 under the Securities Act;

outside the United States to a foreign person in a transaction meeting the requirements of Rule 903 or 904 of Regulation S under the Securities Act;

in accordance with another exemption from the registration requirements of the Securities Act and based upon an opinion of counsel if we so request;

to us; or

pursuant to an effective registration statement.

In each case, the private notes may be resold only in accordance with any applicable securities laws of any state of the United States or any other applicable jurisdiction.

USE OF PROCEEDS

The exchange offer satisfies an obligation under the registration rights agreement. We will not receive any cash proceeds from the exchange offer.

The net proceeds from the sale of the private notes, after deducting discounts, commissions and estimated offering expenses were approximately \$220.1 million. We used approximately \$98.1 million of the net proceeds to purchase all of our outstanding \$88.7 million of 11 ⁵/8% Senior Subordinated Notes due 2007 (the 2007 notes), and we will use the remaining net proceeds for general corporate purposes, which may include acquisitions. As part of our overall business strategy, we pursue acquisitions of and investments in complementary companies, products and technologies. We are evaluating a number of acquisitions on a preliminary basis, but it is not certain that any of these transactions will advance beyond the preliminary stages or be completed.

CAPITALIZATION

(in thousands)

The following table sets forth our cash and cash equivalents, short-term debt and our consolidated capitalization at June 30, 2003, actual and as adjusted to give effect to the offering of the private notes and the related transactions and the application of the net proceeds thereof.

	June 30, 2003		
	Actual	As Adjusted	
Cash and cash equivalents	\$ 28,828	\$ 138,737	
Short-term debt:			
Notes payable and current maturities of long-term debt	\$ 13,405	\$ 13,405	
Long-term debt, net of current maturities:			
Revolving credit facility		(1)	
7.50 % Senior Subordinated Notes due 2013		\$ 225,000	
11 ⁵ /8% Senior Subordinated Notes due 2007	\$ 98,782	(2)	
Other long-term debt	158	158	
Total long-term debt	\$ 98,940	\$ 225,158	
Total debt	\$ 112,345	\$ 238,563	
		·	
Stockholders equity:			
Preferred stock, \$0.0001 par value, 7,500,000 shares authorized; none outstanding at June 30, 2003			
Class A common stock, \$0.0001 par value, 50,000,000 shares authorized; outstanding 20,583,119 shares			
outstanding at June 30, 2003	2	2	
Class B common stock, \$0.0001 par value, 20,000,000 shares authorized; outstanding 4,852,242 shares			
outstanding at June 30, 2003	1	1	

Additional paid-in capital	39,219	39.219
Class A treasury stock, zero shares at June 30, 2003	39,219	59,219
Retained earnings	392.161	383,218(3)
Accumulated other comprehensive income: Currency translation and other	17.211	17.211
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Total stockholders equity	\$ 448,594	\$ 439,651
Total capitalization	\$ 560,939	\$ 678,214

The As Adjusted column does not give effect to any adjustments for the adoption of our new credit facility. See the section Description of Certain Indebtedness.

(3) Outstanding debt issue costs and unamortized bond discount are shown as interest expense as are fees and premiums on the bonds retired.

⁽²⁾ Adjusted for our open market purchase of \$10.7 million aggregate principal amount of our 2007 notes on July 3, 2003 at a purchase price of 111.350%. The remaining \$88.7 million aggregate principal amount of the outstanding 2007 notes were purchased at a purchase price of approximately 110.625%.

SELECTED FINANCIAL INFORMATION AND OTHER DATA

(in thousands, except per share data)

The selected consolidated income statement data and balance sheet data presented below for the years ended December 31, 2002, 2001, and 2000 and as of December 31, 2002 and 2001, are derived from Bio-Rad s consolidated financial statements, audited for the years 2000 and 2001 by the independent auditors Arthur Andersen LLP, who have ceased operations, and for the year 2002 by the independent auditors Deloitte and Touche LLP, and should be read in conjunction with Bio-Rad s audited financial statements and notes thereto included elsewhere in this prospectus. The selected consolidated balance sheet data presented below as of December 31, 2000, 1999 and 1998 are derived from Bio-Rad s audited consolidated balance sheet not included in this prospectus. The selected consolidated balance sheet data for the six months ended and as of June 30, 2003 and 2002 are derived from unaudited financial statements. In the opinion of our management, the unaudited consolidated financial data presented below provide all adjustments, which include only normal recurring adjustments, necessary for a fair presentation of the results of operations for the periods specified. Such results, however, are not necessarily indicative of the results which may be expected for the full fiscal year. The following information should be read in conjunction with the section Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements included in this prospectus.

		Six Months Ended June 30,					
	1998	1999	2000	2001	2002	2002	2003
Income Statement Data:							
Net sales	\$ 447,863	\$ 555,399	\$ 725,884	\$ 817,509	\$ 892,720	\$ 424,842	\$ 489,476
Cost of goods sold	206,796	259,573	348,450	362,140	383,235	181,228	210,359
Gross profit	241,067	295,826	377,434	455,369	509,485	243,614	279,117
Selling, general and administrative expense	168,424	195,944	245,866	264,745	289,175	135,222	156,185
Product research and development expense	41,381	66,710	68,140	76,543	82,935	40,047	44,119
Goodwill amortization(1)	2,068	3,813	8,109	7,746			
Loss (gain) on divestitures(2)			(21, 845)	5,150			
Interest expense	3,731	12,741	30,612	24,088	28,207	11,536	8,347
Foreign exchange losses (gains)	(22)	886	420	2,097	5,441	2,809	1,323
Other (income) and expense, net	(8,743)	(684)	689	10,031	(678)	962	(1,484)
Income before taxes and cumulative effect of change in							
accounting principle	34,228	16,416	45,443	64,969	104,405	53,038	70,627
Provision for income taxes	(9,926)	(4,695)	(13,633)	(20,790)	(36,542)	(18,033)	(23,307)
Income before cumulative effect of change in accounting principle	24,302	11,721	31,810	44,179	67,863	35,005	47,320
Cumulative effect of change in accounting principle(3)			(710)				
Net income	\$ 24,302	\$ 11,721	\$ 31,100	\$ 44,179	\$ 67,863	\$ 35,005	\$ 47,320
Basic earnings per share before cumulative effect of							
change in accounting principle(4)	\$ 0.99	\$ 0.48	\$ 1.30	\$ 1.79	\$ 2.70	\$ 1.40	\$ 1.87
Cumulative effect of change in accounting principle(3)(4)			(0.03)				
Basic earnings per share(4)	\$ 0.99	\$ 0.48	\$ 1.27	\$ 1.79	\$ 2.70	\$ 1.40	\$ 1.87
Diluted earnings per share before cumulative effect of							
change in accounting principle(3)(4)	\$ 0.99	\$ 0.48	\$ 1.30	\$ 1.74	\$ 2.61	\$ 1.35	\$ 1.81
Cumulative effect of change in accounting	φ 0.77	Ψ 0.40	φ 1.50	φ 1.74	φ 2.01	ψ 1.55	φ 1.01
principle(3)(4)			(0.03)				
Diluted earnings per share(3)(4)	\$ 0.99	\$ 0.48	\$ 1.27	\$ 1.74	\$ 2.61	\$ 1.35	\$ 1.81
	φ 0.77	φ 0.+0	ψ 1.2/	φ 1.74	φ 2.01	ψ 1.55	φ 1.01

Cash dividends paid per common share

Other Financial Data:							
EBITDA(5)	\$ 58,934	\$ 56,652	\$ 119,364	\$ 130,369	\$ 170,645	\$ 81,914	\$ 99,469
Depreciation and amortization	\$ 20,975	\$ 27,495	\$ 43,309	\$ 41,312	\$ 38,033	\$ 17,340	\$ 20,495
Capital expenditures, net	\$ 21,176	\$ 27,275	\$ 31,406	\$ 43,228	\$ 42,224	\$ 18,974	\$ 25,368
Ratio of earnings to fixed charges(6)	5.3x	1.9x	2.3x	3.2x	4.0x	4.9x	6.7x
Ratio of EBITDA to interest expense(5)	15.8x	4.4x	3.9x	5.4x	6.0x	7.1x	11.9x
Ratio of total debt to EBITDA(5)	0.9x	4.6x	1.9x	1.5x	0.7x		
Balance Sheet Data (at period end):							
Cash	\$ 10,081	\$ 17,087	\$ 13,954	\$ 47,129	\$ 27,733	\$ 25,655	\$ 28,828
Total assets	\$ 367,299	\$ 668,862	\$ 646,278	\$ 684,028	\$ 720,703	\$ 704,124	\$ 775,370
Long-term debt, net of current maturities	\$ 42,339	\$ 239,211	\$ 203,360	\$ 188,423	\$ 105,768	\$ 149,417	\$ 98,940
Total debt	\$ 51,732	\$ 261,171	\$ 221,506	\$ 198,354	\$ 113,254	\$ 160,573	\$ 112,345
Stockholders equity	\$ 214,334	\$ 220,114	\$ 244,618	\$ 283,877	\$ 383,087	\$ 340,914	\$ 448,594

- (1) In 2002, Statement of Financial Accounting Standards (SFAS) No. 142, Goodwill and Other Intangible Assets became effective. We adopted SFAS No. 142 and ceased to amortize approximately \$77.7 million of goodwill. We had recorded approximately \$7.7 million of amortization of these amounts during 2001. In lieu of amortization, we were required to perform an initial impairment review of goodwill in 2002 and an annual impairment review thereafter. We did not record an impairment charge upon completion of the initial impairment review. However, there can be no assurance that a material impairment charge will not be recorded in future periods.
- (2) In 2000, we experienced a gain of \$21.8 million on sale of the assets and certain liabilities of our semiconductor and optoelectronic
- metrology business. In 2001, we experienced a loss of \$5.2 million on sale of the assets and certain liabilities of our spectroscopy business. (3) Cumulative effect of accounting change per SEC Staff Accounting Bulletin 101, on Revenue Recognition.
- (4) Restated to give effect to a two-for-one stock split in the form of a 100% stock dividend in 2002.
- (5) EBITDA is a non-GAAP financial measure which represents net income (or loss) plus interest expense, income taxes, depreciation and amortization expense. We believe that EBITDA is a financial measure of interest to the lending community. We believe that EBITDA is generally used as a measure of a company s ability to meet cash needs. EBITDA is not intended to be a liquidity measure that should be regarded as an alternative to, or more meaningful than, cash flows from operating activities or as a measure of liquidity determined in accordance with GAAP. The definition we use for EBITDA is not necessarily comparable to similarly titled amounts of other companies. The following table reconciles the differences between net cash provided by operating activities (a GAAP financial measure) and EBITDA:

		Year Ended December 31,					Six Months Ended June 30,	
	1998	1999	2000	2001	2002	2002	2003	
Cash flows provided by operating activities	\$ 27,335	\$ 44,981	\$ 24,247	\$ 99,495	\$ 104,835	\$ 37,970	\$ 46,592	
Change in operating assets and liabilities	12,304	(21,328)	30,109	10,704	20,647	20,482	37,131	
Interest expense	3,731	12,741	30,612	24,088	28,207	11,536	8,347	
Current income taxes	9,926	4,695	13,633	20,790	36,542	18,033	23,307	
Change in deferred income taxes	5,292	16,946	(3,383)	1,679	(12,702)	123	(5,994)	
Gain on sale of semiconductor division and fixed assets			21,845					
Loss on sale of spectroscopy business and write-down of investments				(15,380)	(5,007)	(2,000)		
Other expense	346	(1,383)	1,591	(11,007)	(1,877)	(4,230)	(9,914)	
Cumulative effect of change in accounting								
principle			710					
			·			·		
EBITDA	\$ 58,934	\$ 56,652	\$ 119,364	\$ 130,369	\$ 170,645	\$ 81,914	\$ 99,469	

(6) For purposes of calculating this ratio, earnings have been computed by adding to pre-tax earnings the fixed charges. Fixed charges include interest, amortization of debt premium/discount and expense and a portion of rental expense deemed to be representative of the interest factor.

MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION

AND RESULTS OF OPERATIONS

This Management s Discussion and Analysis of Financial Condition and Results of Operations is intended to assist in the understanding and assessment of the trends and significant changes in our results of operations and financial condition. Historical results may not indicate future performance. Our forward-looking statements are subject to a variety of factors that could cause actual results to differ materially from those contemplated by these statements. Factors that may cause such a difference include, but are not limited to, those discussed in Risk Factors. Management s discussion and analysis should be read in conjunction with our consolidated financial statements and the accompanying notes included in this prospectus.

Results of Operations of Bio-Rad

The following table shows operating income and expense items as a percentage of net sales for the periods indicated:

Year Ended December 31,			Six Months Ended June 30,	
2000	2001	2002	2002	2003
100.0%	100.0%	100.0%	100.0%	100.0%
48.0	44.3	42.9	42.7	43.0
52.0	55.7	57.1	57.3	57.0
33.9	32.4	32.4	31.8	31.9
9.4	9.4	9.3	9.4	9.0
4.3%	5.4%	7.6%	8.2%	9.7%
	2000 100.0% 48.0 52.0 33.9 9.4	2000 2001 100.0% 100.0% 48.0 44.3 52.0 55.7 33.9 32.4 9.4 9.4	2000 2001 2002 100.0% 100.0% 100.0% 48.0 44.3 42.9 52.0 55.7 57.1 33.9 32.4 32.4 9.4 9.4 9.3	Year Ended December 31, June 2000 2001 2002 2002 100.0% 100.0% 100.0% 100.0% 48.0 44.3 42.9 42.7 52.0 55.7 57.1 57.3 33.9 32.4 32.4 31.8 9.4 9.4 9.3 9.4

Six Months Ended June 30, 2003 Compared to Six Months Ended June 30, 2002

Net sales (sales) for the first half of 2003 were \$489.5 million compared to \$424.8 million in the first half of 2002, an increase of 15.2%. The favorable impact from a weakening U.S. dollar provided 9.9% of our reported sales growth. Sales increased 4.7% in Life Science on a constant currency basis. Clinical Diagnostics sales growth on a constant currency basis was 5.9%. The growth in Life Science is attributed to demand for our process chromatography products for bio-pharmaceutical manufacturing, laboratory supplies and microarray offerings. The growth in Clinical Diagnostics was from products for quality controls, autoimmune testing and diabetes monitoring.

Adjusted for currency, non-U.S. sales growth was flat in the first half of 2003 compared to the first half of 2002, reflecting general economic conditions, while U.S. sales growth exceeded that of the total company.

Our consolidated gross margins were 57.0% for the first half of 2003 compared to 57.3% for the first half of 2002 and 57.1% for all of 2002. The net overall decrease is attributable to Life Science, as Clinical Diagnostics margins improved less than 1%. Gross margins decreased in Life Science principally due to lower average selling price in food safety products. Clinical Diagnostics margins improved due to improved sales in the form of increased unit volume.

Selling, general and administrative expense (SG&A) increased to 31.9% of sales in the first half of 2003 from 31.8% of sales in the first half of 2002. Overall, Life Science grew SG&A at a rate that exceeded sales while Clinical Diagnostics SG&A growth was less than its sales growth. Life Science has increased spending on personnel, demonstration equipment and professional services. We have current initiatives in this segment to grow proteomic and genomic sales, preserve its market share in food safety and enhance its current information technology. Clinical Diagnostics grew SG&A at less than three quarters of its sales growth.

Product research and development expense increased to \$44.1 million or 9.0% of sales in the first half of 2003 compared to 9.4% of sales in the first half of the prior year. Spending increased in both Life Science and Clinical Diagnostics in absolute dollars. We plan to reinvest between 9% and 10% of sales in research and development going forward to support growth. Our spending level during the first half of 2003 was lower than anticipated, but we expect spending to increase prior to December 31, 2003.

Interest expense for the first half of 2003 decreased from the same period in the prior year, reflecting a reduction in total borrowings. In 2002, we retired the remaining \$42.5 million aggregate principal amount of the term loan portion of our then existing credit facility. We also retired through open market purchases \$50.6 million aggregate principal amount of our 2007 notes as of June 30, 2003.

Other (income) and expense, net in the first half of 2003 is principally comprised of interest income and other investment income. The first half of 2002 includes a \$2.0 million non-cash pre-tax expense reflecting impairment in our investment in Digilab LLC. Foreign exchange losses decreased compared to the same period in 2002 as the exchange losses incurred at our Brazilian subsidiary have not occurred in 2003. Foreign exchange losses also include premiums and discounts for our hedging program.

Our effective tax rate declined to 33% for the first half of 2003 compared to 34% for the first half of 2002. The decline is attributed to improved profitability in countries which in the prior period had losses which did not provide a benefit to our overall effective rate.

Year Ended December 31, 2002 Compared to Year Ended December 31, 2001 and Year Ended December 31, 2000

Our sales for 2002 were \$892.7 million, an increase of 9% over 2001. The divestiture of the spectroscopy product line in the fourth quarter of 2001 had the effect of lowering overall growth 2%. The impact of a weakening U.S. dollar provided growth from net foreign currency denominated sales of just less than 1% for the full year. Our overall growth exceeded 11% when adjusted for divestitures and the change in translation rates used to convert foreign sales.

Our Life Science segment had sales growth of 13%, benefiting from an approximate 1% increase due to foreign exchange. The majority of growth was provided by consumables.

Our Clinical Diagnostics segment achieved sales growth of 9%, again benefiting from an approximate 1% increase due to foreign exchange. Contributing product lines included diabetes, autoimmune, quality control products, and blood virus products.

Our net sales for 2001 reached \$817.5 million, an increase of 13% over the year 2000. The year 2001 benefited from sales of our BSE test which had negligible sales in the year 2000. Divestitures in the Clinical Diagnostics and analytical instruments segments along with a strengthening U.S. dollar had the effect of lowering our sales growth on a comparative basis. Adjusting for divestitures and the impact of currency, sales growth for the year 2001 was 25%.

Our 2002 consolidated gross margins improved to 57.1% from 55.7% in 2001. Life Science improved approximately 0.3% based largely on sales mix as consumables and apparatus with higher margins than instruments comprised a greater portion of the total sales volume. Clinical

Diagnostics gross margins improved from lower manufacturing overhead spending and a decrease in provisions for obsolete inventory. Finally, the divestiture of the spectroscopy product line of our former analytical instruments group also helped contribute as it historically operated at a much lower gross margin than either Life Science or Clinical Diagnostics.

Our consolidated gross margins in 2001 were 55.7%, an improvement over 2000 reflecting several favorable factors. Life Science margins improved from changed sales mix as consumables, including the BSE test, made up

a larger portion of total Life Science sales with generally higher margins than apparatus and equipment. Manufacturing overhead absorption improved due to increased manufacturing activity without an equivalent increase in fixed factory spending. Clinical Diagnostics margins improved due to lower royalty costs on manufactured products, improved manufacturing efficiencies in France, the settlement of a royalty dispute providing a one-time increase in royalty income, and overall lower manufacturing costs in the quality control product lines. The positive results noted above were partially offset by the negative impact of a strengthening dollar on U.S. manufactured products sold into international markets.

Our consolidated SG&A expense remained unchanged from 2001 at 32.4% of sales. Spending increased in absolute dollars in both Life Science and Clinical Diagnostics. The areas where increases were the largest were in Europe to support the growth that began in 2001. Increases were primarily for personnel and related expenses, agent commissions and advertising. We invested in both direct sales and sales support personnel. As part of this effort, we also increased our involvement in Eastern Europe. Asia, excluding Japan, was a second area of emphasis in 2002 for us. We replaced some agents and distributors consolidating our activities in our wholly owned subsidiaries, with our own personnel. We see an opportunity to increase sales through greater penetration and increasing our direct involvement with the customer.

Our consolidated SG&A expense declined to 32.4% of sales in 2001 from 33.9% of sales in 2000. Spending increased in absolute dollars in each segment except in our former analytical instruments division, which we sold during 2000 and 2001. Life Science expenditures represent additions to sales and marketing headcount, increased customer support services and a continuing investment in e-commerce. Clinical Diagnostics expenditures focused on organizational changes and realigning the business after the acquisition of PSD as well as some strategic marketing initiatives in support of new product development.

Selling, general and administrative expenses increased throughout our company as internationally we replaced distributors with locally owned affiliates and expanded infrastructure to support a wider presence. As we complete communication and information technology capital programs, operating and depreciation costs will increase as the new systems replace fully depreciated legacy systems.

Product research and development expense in 2002 increased by 8.4%, just below the rate of sales of 9.2%. The majority of the increase in absolute dollar spending was in the Life Science segment to support development activities in the areas of proteomics, amplification, food testing, microarray technology and process chromatography. Clinical Diagnostics expenditures remained unchanged. Areas of emphasis for Clinical Diagnostics includes blood screening, autoimmune testing, genetic disorders and expanded offerings for the quality control product line. We plan to reinvest between 9% and 10% of sales in research and development going forward to support growth.

Product research and development expense in 2001 increased by 12% or \$8.4 million over 2000. As a percentage of sales, R&D expense was 9.4%, the same percentage as in 2000. Life Science efforts represent the development of new products and applications for proteomic and genomic researchers, pharmaceutical discovery, and food testing markets. Clinical Diagnostics expenditures concentrated on new automation for some of our diagnostic tests for blood screening and expanding the available products in the quality control product line.

Our interest expenses increased to \$28.2 million in 2002. Included in the interest costs for 2002 is \$6.9 million of costs associated with the open market repurchase of \$43.9 million of our 2007 notes. The notes were repurchased in the period September through December 2002. The costs incurred included a premium to repurchase the notes, the expensing of unamortized debt issue costs and original issue discount. Excluding these costs, interest expense declined due to overall lower borrowings. Our interest expense decreased by \$6.5 million for the year 2001 as we repaid debt and benefited from overall lower average borrowing costs on our variable rate debt. Net other income and expense for 2002 and 2001 primarily includes a non-cash write-down of an investment in a closely held foreign company and other investments, and interest income.

Foreign exchange losses for 2002 are principally comprised of exchange gain and loss on intercompany receivables in Brazil and Russia and the net cost of our hedging program for the more established European, Asian and North American currencies.

Our consolidated effective tax rate was 35%, 32% and 30% in 2002, 2001 and 2000, respectively. The tax rate for all years reflects the utilization of loss carryforwards, foreign sales corporation benefits and foreign tax credits. The effective tax rate rose in 2002, primarily as a result of increased profitability in countries with higher tax rates, current period local tax losses which do not provide a consolidated tax benefit and the effect of proportionally less tax credits on foreign sales and research and development, when compared to taxable income.

Liquidity and Capital Resources

Historically, our principal capital requirement was for working capital to fund our internal growth. As a result of the obligations undertaken in relation to the acquisition of PSD on October 1, 1999, we became highly leveraged with a debt-to-equity ratio at year-end in 1999 of 119%. Since that time we have improved our overall liquidity reducing our debt-to-equity ratio at year-end 2002 to 30%.

As of June 30, 2003, we had available approximately \$100 million, or 100% of the revolving portion of our September 30, 1999 credit facility and \$20.1 million under various foreign lines of credit. Cash and cash equivalents available were \$28.8 million. At December 31, 2002, we had available \$27.7 million in cash and cash equivalents, \$24.2 million under the international lines of credit and \$100.0 million under the September 30, 1999 credit agreement. Management believes that this availability, together with cash flow from operations, will be adequate to meet our current objectives for operations, research and development and investment in our systems and equipment.

We entered into a new credit facility on September 9, 2003. Our new credit facility provides us with up to \$150.0 million in available revolving borrowings, which amount we can increase at any time by an additional \$50.0 million in available revolving borrowings, subject to the agreement of the administrative agent and the lender or lenders providing the increase and provided that we are not in default under the facility. Our new credit facility contains financial covenants and maintenance tests including a leverage ratio test, an interest coverage ratio test and a consolidated net worth test, and restrictive covenants including restrictions on our ability to declare or pay dividends, incur debt, in the case of some of our subsidiaries, guarantee debt, enter into transactions with affiliates, merge or consolidate, sell assets, make investments, create liens and prepay subordinated debt.

Our new credit facility is secured by substantially all of our personal property assets and the assets of our material domestic subsidiaries and by a pledge of all of the capital stock of our domestic subsidiaries and, no later than September 30, 2004, up to 65% of the capital stock of certain foreign subsidiaries, and will be guaranteed by all of our existing and future domestic subsidiaries (other than immaterial domestic subsidiaries, as defined for purposes of our new credit facility). As of the date of this prospectus, all of our domestic subsidiaries.

Net Cash. Net cash provided by operations was \$46.6 million and \$38.0 million for the first six months of 2003 and 2002, respectively. Net cash provided by operations was \$104.8 million, \$99.5 million and \$24.2 million in 2002, 2001 and 2000 respectively. The divestiture of the analytical instruments segment, the integration of the PSD acquisition, and the introduction of new products (most notable the BSE test) have all contributed to our improved cash flow from operations.

Consolidated Net Accounts Receivable. At June 30, 2003, consolidated accounts receivable decreased by \$0.4 million from December 31, 2002. The decrease was due to improved overall collections offset by the appreciation of receivables denominated in foreign currency.

Management regularly reviews receivables for collectibility. For the year ending December 31, 2002, consolidated net accounts receivable increased by \$17.9

million or 9.2% over the year 2001. The impact of strengthening foreign currencies, in particular, the Euro versus the U.S. dollar, accounts for the majority of the increase. From December 31, 2001 to December 31, 2002 the Euro strengthened approximately 18%. European accounts receivable approximated 55% of our year-end 2002 balance of total receivables. The portion of the increase due to factors other than currency amounted to approximately \$1.5 million. Our management regularly reviews the allowance for uncollectable accounts receivable and believes net accounts receivable are fully realizable.

Consolidated Inventories. At June 30, 2003, consolidated net inventories increased by \$19.9 million from December 31, 2002. Approximately one-third of this increase is due to the strengthening of European and Japanese currency against the U.S. dollar. The remaining increase largely represents levels necessary to meet customer demands for Life Science consumable products. Clinical Diagnostics inventory have grown in part for the U.S. introductions of a new diabetes testing system and large year-end orders in the quality controls product line. For the year ending December 31, 2002, consolidated net inventory increased \$27.2 million or 19.5% over the year 2001. Again, strengthening foreign currencies accounted for a majority of the increase in inventory value. Acquisition of the microarray product line and a diagnostic supplier added approximately \$3 million of the increased inventories. Inventory growth unrelated to the aforementioned was concentrated in Life Science consumable products and Clinical Diagnostics quality controls, which were both significant contributors to the year 2002 sales growth. Inventory for the Clinical Diagnostics controls business is characterized by long lead times and large infrequent batch production which is necessary to meet customer requirements. Our management routinely reviews the impact of obsolescence and market prices on current inventory caused by the introduction of new products, technologies and various pricing regulations.

Net Capital Expenditures. Our net capital expenditures totaled \$25.4 million for the first six months of 2003 compared to \$19.0 million for the same period of 2002. Capital expenditures for the period include reagent rental equipment placed with Clinical Diagnostics customers who then commit to purchase our diagnostic reagents for use. Other expenditures represent our investment in business systems, data communication, production equipment and improvements to production facilities. Our construction of a new facility on our campus in Hercules, California for manufacturing, laboratory, and general office use, represents \$6.2 million of spending for the first six months of 2003. In total we have capitalized \$8.0 million of the estimated \$25.0 million to complete the project. We estimate that the project should be complete in the first quarter of 2004.

Net capital expenditures in 2002 totaled \$42.2 million compared to \$43.2 million and \$31.4 million in 2001 and 2000, respectively. A principal expenditure in all years was clinical diagnostic equipment placed with customers to be used with our diagnostic reagents. We began construction late in the third quarter of 2002 of our new facility on our campus in Hercules, California. Other expenditures in the period represent our investment in business systems to standardize distribution software, enhance data communication, replace and update production equipment and improve equipment and facilities to meet the necessary Good Manufacturing Practices (GMP) mandated by the FDA for Clinical Diagnostics and other regulatory bodies as well as many customers of the Life Science group. It is estimated that the European In Vitro Diagnostic Directive will increase the burden of compliance for us in Europe and will necessitate continued compliance expenditures of a capital nature.

Through June 30, 2003, we purchased in the open market and retired \$50.6 million aggregate principal amount of our 2007 notes. These notes may be redeemed after February 14, 2004 and before February 15, 2005 in whole or part at a redemption price of 105.813% for the interim period to February 15, 2006 at 102.906% and thereafter at 100%. Repurchases were originally restricted by the terms of our existing credit facility but that agreement has been amended twice, first to allow a partial repurchase, and subsequent to year-end, to allow the complete repurchase of all amounts outstanding. Subsequent to June 30, 2003, we have redeemed an additional \$10.7 million of our 2007 notes at an expense including interest, premiums paid above par, unamortized issue costs and unamortized discount of approximately \$1.5 million.

On August 14, 2003, we completed a cash tender offer for all of our outstanding 2007 notes. We received tenders from holders of approximately 97% of the \$88.7 million of the 2007 notes subject to the tender offer and

accepted all of those notes for purchase at an aggregate purchase price of \$95.8 million. In connection with the tender offer, we solicited holders of the 2007 notes to consent to proposed amendments to the indenture governing the 2007 notes, which eliminated substantially all of the restrictive covenants and certain related events of default. On September 17, 2003, we redeemed, in accordance with the terms of the indenture governing the 2007 notes, all of the remaining outstanding 2007 notes, at a price equal to 100% of the principal amount thereof plus the applicable premium calculated in accordance with the terms of the indenture governing the 2007 notes, plus accrued and unpaid interest to September 17, 2003.

We continue to review possible acquisitions to expand both our Life Science and Clinical Diagnostics segments. We routinely meet with the principals or brokers of the subject companies. Currently no discussions involving a material acquisition (defined as having the potential to be greater than either 5% of total assets, sales or net income) have progressed beyond the most initial phases.

The Board of Directors has authorized us to repurchase up to \$18 million of our common stock over an indefinite period of time. Through June 30, 2003, we have cumulatively repurchased 1,179,272 shares of Class A Common Stock and 60,000 shares of Class B Common Stock for a total of \$14.7 million. Our credit agreements restrict our ability to repurchase our own stock. There were no share repurchases made during 2002 or in 2003 to date. The repurchase is designed to improve shareholder value and to satisfy our obligations under our employee stock purchase and stock option plans.

Financial Risk Management

We use derivative financial instruments to reduce our exposure to fluctuations in foreign exchange rates and, on occasion, interest rates. No derivative financial instruments are entered into for the purpose of speculating or trading. Company policy limits all derivative positions exclusively to reduce risk by hedging an underlying economic exposure. In most cases, derivative investments do not qualify for hedge accounting treatment under Statement of Financial Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities. Derivative instruments used in these transactions will be valued at fair value and changes in fair value will be included in reported earnings.

We operate and conduct business in many countries and are exposed to movements in foreign currency exchange rates. Additionally, our consolidated net equity is impacted by the conversion of the net assets of international subsidiaries for which the functional currency is not the U.S. Dollar. Foreign currency exposures are managed on a centralized basis by our corporate Treasury Department. This allows for the netting of natural offsets and lowers transaction costs and exposures. We currently make more than 50% of our sales outside the United States and weakening in one currency can often be offset by strengthening in another.

We typically enter into forward exchange contracts to sell our foreign currency. Contracts are entered into typically for 30 to 60 days, primarily in British Sterling, Japanese Yen and the Euro or related currencies. The costs are recognized in income monthly and generally are the reciprocal of the change in underlying assets. We do not hold any derivative contracts that hedge our foreign currency denominated net asset exposures. We use sensitivity analysis to assess the market risk associated with our foreign currency exchange risk. Market risk is the potential change in fair value of derivative positions from an adverse movement in currency exchange rates. As of June 30, 2003, our market risk was not significant.

Our long-term debt consists mostly of fixed rate instruments. While we have used derivative instruments in the past, we did not hold any interest rate derivative contracts at June 30, 2003.

Recent Accounting Pronouncements

In April 2002, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 145, Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement

No. 13, and Technical Corrections. One of the major changes of this statement is to change the accounting for the classification of gains and losses from the extinguishment of debt. We adopted SFAS No. 145 as of January 1, 2002 and will follow APB 30, Reporting the Results of Operations Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions in determining whether such extinguishment of debt may be classified as extraordinary. As a result of adoption, the expenses incurred (including premiums paid above par, unamortized debt issuance cost and unamortized original issue discount) in the repurchase of outstanding debt on the open market has been included in interest expense. No other impact from adoption was recognized.

In June 2002, the FASB issued SFAS No. 146 Accounting for Costs Associated with Exit or Disposal Activities, which addresses accounting for restructuring and similar costs. SFAS No. 146 requires that a liability for costs associated with an exit or disposal activity be recognized and measured initially at fair value only when the liability is incurred. SFAS No. 146 is effective for exit or disposal activities that were initiated after December 31, 2002. The adoption of SFAS No. 146 did not have any impact on our consolidated financial statements.

In November 2002, the FASB issued Financial Interpretation No. (FIN) 45, Guarantor s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others, which requires certain guarantees to be recorded at fair value. The interpretation also requires a guarantor to make new disclosures, even when the likelihood of making any payments under the guarantee is remote. In general, the interpretation applies to contracts or indemnification agreements that contingently require the guarantor to make payments to the guaranteed party based upon changes in an underlying obligation that is related to an asset, liability, or an equity security of the guaranteed party. The adoption of FIN 45 did not have an impact on our operating results or financial position.

In December 2002, the FASB issued SFAS No. 148, Accounting for Stock-Based Compensation Transition and Disclosure, an Amendment of FASB Statement No. 123. This statement provides alternative methods of transition for companies who voluntarily change to the fair value-based method of accounting for stock-based employee compensation in accordance with SFAS No. 123, Accounting for Stock-Based Compensation. The statement requires prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based compensation using the intrinsic value method in accordance with the provisions of Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees, elected under SFAS No. 123, as amended. As a result, the adoption of SFAS No. 148 did not have any impact on our consolidated financial statements.

In January 2003, the FASB issued FIN 46, Consolidation of Variable Interest Entities. FIN 46 requires that if an entity has a controlling financial interest in a variable interest entity, the assets, liabilities and results of activities of the variable interest entity should be included in the consolidated financial statements of the entity. FIN 46 requires that its provisions are effective immediately for all arrangements entered into after January 31, 2003. For any arrangements entered into prior to January 31, 2003, the FIN 46 provisions are required to be adopted at the beginning of the first interim or annual period beginning after June 15, 2003. We do not expect the adoption of FIN 46 to have an impact on our operating results or financial position.

In April 2003, the FASB issued SFAS No. 149, Amendment of Statement 133 on Derivative Instruments and Hedging Activities. SFAS No. 149 amends and clarifies accounting for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities under Statement 133. SFAS No. 149 is effective for contracts entered into or modified after June 30, 2003 and for hedging relationships designated after June 30, 2003. The guidance should be applied prospectively. We do not expect the adoption of SFAS No. 149 to have a significant impact on our operating results or financial position.

In May 2003, the FASB issued SFAS No. 150, Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity. SFAS No. 150 clarifies the accounting for certain financial instruments with characteristics of both liabilities and equity and requires that those instruments be classified as liabilities in statements of financial position. Previously, many of those financial instruments were classified as equity. SFAS No. 150 is effective for financial instruments entered into or modified after May 31, 2003 and otherwise is effective at the beginning of the first interim period beginning after June 15, 2003. We do not expect the adoption of SFAS No. 150 to have a significant impact on our operating results or financial position.

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BUSINESS

Our Company

We are a multinational manufacturer and worldwide distributor of life science research products and clinical diagnostics products. Organizing our business around two primary segments, Life Science and Clinical Diagnostics, our mission is to provide scientists with the specialized tools needed for discovery in biological research and clinical diagnostics.

We believe we are the market leader in many of the product areas in which we compete, selling more than 8,000 products and services to a diverse client base comprised of scientific research, healthcare, industrial, educational and government customers worldwide. We manufacture and supply our customers with a broad range of products and systems used to separate complex chemical and biological materials and to identify, analyze and purify their components. Because our customers require standardization for their experiments and test results, we believe approximately 70% of our revenue is considered recurring.

We continue to build upon our worldwide reputation for quality, innovative products and well-recognized brand names within our industry. Our reach is global, as we currently provide products and services to 70,000 customers in 130 countries worldwide. For the year ended December 31, 2002 and for the six-month period ended June 30, 2003, we had net sales of \$892.7 million and \$489.5 million, respectively, and EBITDA (as defined in footnote (5) of Prospectus Summary Summary Consolidated Financial and Other Data) of \$170.6 million and \$99.5 million, respectively.

Our Life Science segment and our Clinical Diagnostics segment generated 48% and 51%, respectively, of our net sales for the year ended December 31, 2002. We generated approximately 36% of our consolidated net sales for the year ended December 31, 2002 from U.S. sales and approximately 64% from sales in our remaining worldwide markets.

In addition to our significant internal focus on the development and commercialization of new products, we have also pursued tactical acquisitions to round out our existing product offerings or enter complementary markets in which we believe we could be a market leader. For example, our acquisition of Pasteur Sanofi Diagnostics (PSD), in October 1999, gave us access to, among other things, the exclusive licenses from the Institut Pasteur in the HIV and infectious disease diagnostic product market as well as the testing technology for mad cow disease. PSD also expanded the geographic reach and market penetration for our products, particularly in Latin America, Africa and France. In order to focus on our core Life Science and Clinical Diagnostics businesses, we have also divested non-core assets. In 2000 and 2001, we sold substantially all of our analytical instruments product lines.

Our founders, David and Alice Schwartz, are still actively involved in the Company and have provided continuity of leadership and control since the Company was founded in 1957. Collectively, as of August 31, 2003, the Schwartz family owns approximately 17% of our Class A Common Stock and 88% of our Class B Common Stock.

Life Science Segment

Our Life Science segment is at the forefront of discovery, creating advanced tools for biological exploration, biopharmaceutical production and food supply testing. We are a market leader in this segment, developing, manufacturing and marketing a complete range of more than 5,000 consumables, apparatus and laboratory instruments, many of which are used in established research techniques, biopharmaceutical production processes and food testing regimes. These techniques are typically used to separate, purify and identify biological materials such as proteins, nucleic acids and bacteria within a laboratory or production setting. We focus on selected segments of the life sciences market, in proteomics, genomics, biopharmaceutical production, cell biology and

food safety. We estimate that the 2002 worldwide sales of products in these selected segments exceeded \$3 billion. We are a leading supplier of broad product lines in the following areas: electrophoresis, image analysis, gene expression, chromatography, gene transfer, sample preparation, gene amplification, Transmissible Spongiform Encephalopathy (TSE) testing, rapid testing for food borne pathogens and science education.

We believe we rank first in sales in the electrophoresis market and that we are second in sales in the image analysis market. In the gene transfer market, we believe we have the leading market position based on exclusive rights we possess with respect to key intellectual property. We believe we are the leading supplier of mad cow disease testing.

The product offering in our Life Science segment is diverse, ranging from reagents or other consumable products selling for \$50-\$100 to instruments selling for \$150,000 or more. In a typical laboratory setting, life science researchers conduct an experiment using a series of instruments to prepare materials and analyze and record results. In each of these experiments, a variety of biological and chemical reagents and other consumable products are expended. The complexity and difficulty of many of these experiments require that researchers use established techniques to reproduce the results of others or to assure reproducibility of their own series of experiments. In order to assure consistency, researchers tend to standardize materials and methods to dictate the use of certain specific brands of instruments, consumable products and reagents.

Our principal life science customers include universities and medical schools, industrial research organizations, government agencies, pharmaceutical manufacturers, biotechnology researchers and food testing laboratories.

Clinical Diagnostics Segment

Our Clinical Diagnostics segment designs, manufactures, sells and supports test systems, informatics systems, test kits and specialized quality controls that serve clinical laboratories in the global diagnostics market. We estimate that the 2002 worldwide sales in this market were approximately \$23 billion.

We supply more than 3,000 different products covering more than 300 clinical diagnostic tests to the specialty *in vitro* diagnostics (IVD) test market. We estimate that the 2002 worldwide sales in this market were approximately \$9 billion. IVD tests are conducted outside the body and are used to identify and measure substances in a patient s tissue, blood or urine. Our products consist of reagents, instruments and software, typically provided to our customers as an integrated package to allow them to generate reproducible test results. Revenue in this business is highly recurring, as laboratories standardize on test methodologies that are dependent on a particular supplier s reagents and consumable products. An installed base of diagnostic test systems creates an ongoing source of revenue through the sale of test kits for each sample analyzed on an installed system.

Our products currently address specific niches within the specialty IVD test market, and we focus on the higher margin, higher growth segments of this market. We are a significant player in each of the following market segments: autoimmune disease testing, blood virus detection, quality controls and long-term diabetes monitoring performed in laboratories (in particular, our hemoglobin A1c test system). In addition, we provide clinical diagnostic products in the blood typing, emergency toxicology testing, genetic disorders detection, infectious disease testing and microbiology markets. We believe we have leading positions in certain specific diagnostic test areas.

We believe that we have the number one market share in both autoimmune disease testing and the monitoring of diabetes. Autoimmune disease is a condition in which an individual s immune system recognizes areas of the body as foreign and mounts a destructive attack. Examples of these types of disease are Systemic Lupus Erythematosus, Scleroderma and Sjogren s Syndrome. The autoimmune disease testing market is highly specialized and growing rapidly.

Our Hemoglobin A1c test is the gold standard for monitoring diabetic patients. The Hemoglobin A1c blood marker is used by physicians to determine the progress of a patient over a three-month period in a single test result. This and related tests are sold to laboratories and physician offices for use on a variety of instruments and devices.

We believe we also have the number one market position in quality control products. Clinical laboratories use quality control products to validate the test results obtained on patient specimens. Laboratories are required by regulatory agencies to run control samples alongside patient specimens to assure the accuracy and precision of their test systems. Our quality control products are designed to be used on a wide variety of laboratory test systems. We derive a substantial portion of our Clinical Diagnostics net sales from long-term agreements for the supply of reagents and services for installed instruments and quality control systems, both of which have historically generated a stable and recurring stream of net sales.

In the highly specialized and growing blood virus testing market, we believe we are third in terms of overall market share. Our tests for AIDS and hepatitis are used worldwide to protect the blood supply and diagnose infection. We are the exclusive license holder of the HIV-2 patent.

Our principal clinical diagnostic customers include hospital laboratories, reference laboratories, transfusion laboratories, physician office laboratories, state newborn screening facilities and insurance and forensic testing laboratories.

Industry Overview

Life Science Segment

Life science is the study of the characteristics, behavior, and structure of living organisms and their component systems. Life science researchers use a variety of products and systems including reagents, instruments, software and apparatus to advance the study of life processes, drug discovery and biotechnology, primarily within a laboratory setting.

We focus on selected segments of the life science market, in proteomics, genomics, biopharmaceutical production, cell biology and food safety, for which we estimate 2002 worldwide sales exceeded \$3 billion. The primary technological applications that we supply to these segments are diverse and consist of electrophoresis, image analysis, immunoassay, chromatography, gene transfer and sample preparation and amplification. The primary end-users in our sectors of the market are universities and medical schools, industrial research organizations, government agencies, pharmaceutical manufacturers, biotechnology researchers and food testing laboratories.

We believe that we are well-positioned to capitalize on the following favorable trends influencing the life science industry:

the rapid pace of drug discovery and commercialization by pharmaceutical and biotechnology companies;

the increasing importance of proteomics or protein expression with respect to gene expression and biological processes;

the growth in research and development expenditures by pharmaceutical manufacturers and in research grants from government agencies;

the production of medicines based on genetically engineered biological processes;

the vital role of the academic community in developing new analytical methods for pharmaceutical and biotechnological applications; and

the public health requirement for a safer food supply especially related to the detection and removal of animals infected with prion diseases like BSE or Chronic Wasting Disease (CWD).

Clinical Diagnostics Segment

We estimate that the 2002 worldwide sales in the global diagnostics market were approximately \$23 billion. The worldwide clinical diagnostic industry encompasses a wide variety of products and services sold to the clinical testing laboratory. These products employ a broad array of technologies to detect, identify, and quantitate human diseases from blood or other bodily specimens.

Our Clinical Diagnostics segment serves the specialized testing portion of this market with test reagents, automated instruments, software, and quality controls. This specialized testing segment represents 39% or about \$9 billion of the global diagnostics market. Tests done in this segment are generally more complex or are performed when a physician requires more specific information. They are lower in volume but command higher prices than routine tests.

The test results are used as aids for medical diagnosis, detection, evaluation, monitoring and treatment of diseases and other medical conditions. Most clinical diagnostics tests are performed *in vitro* (literally, in glass), while the remainder consists of *in vivo* (in the body) tests. The most common type of *in vitro* tests are routine chemistry tests that measure important health parameters, such as glucose, cholesterol or sodium, as part of routine blood checks. A second type of diagnostic tests, on which we focus, are more specialized and require more sophisticated equipment and materials than do routine tests.

Within the global clinical diagnostics industry, we selectively compete in niche areas:

Autoimmune Disease Testing, Blood Typing, Infectious Disease Testing. The majority of our specialty immunoassay tests, including immunoassay kits for autoimmune disorders and infectious diseases, such as H. pylori, HIV confirmation, syphilis and toxoplasmosis, fall under the virology/serology market segment. This testing area includes our radioimmunoassay and enzyme immunoassay kits for anemia, thyroid, steroids and bone metabolism testing. Additional assays for biogenic amines and certain vitamins utilize the high performance liquid chromatography methodology.

Blood Virus Detection. We are a major supplier of blood screening assays to transfusion laboratories and blood banks worldwide. Our AIDS and hepatitis tests represent state-of-the-art immunoassay technology for the protection of the blood supply.

Diabetes Monitoring. Within this niche of the clinical diagnostics industry, we introduced the gold standard Hemoglobin A1c technology in 1983. Our VARIANTII Automated Hemoglobin Analyzer supports our strong position in diabetes monitoring, and the compact D-10 and DiaSTAT analyzers allow for the monitoring and adjustment of diabetic therapy in the doctor s office. Bio-Rad s diabetes monitoring products are certified by the National Glycohemoglobin Standardization Program (NGSP).

Emergency Toxicology. Within this niche of the clinical diagnostics industry, we supply broad-spectrum drug screening instruments, including the REMEDi HS Drug Profiling System which provides rapid detection of drugs in overdosed patients, detecting up to 700 drugs in 20 minutes.

Genetic Disorders Testing. Within this niche of the clinical diagnostics industry, we provide conventional methods of genetic disorders screening for both newborns and adults, involving immunoassay, chromatography and biochemistry technologies. Common tests include those for sickle cell anemia and other neonatal applications, as well as thalassemia testing for adults and newborns.

Internet-based Software. Clinical Systems Network (CSN) is an Internet-based product aimed at the healthcare informatics market. Informatics involves software programs that create, annotate and link various databases, including software tools that use complex search algorithms to make sense of diagnostic information. The CSN product allows users to securely transmit patient data, instrument

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performance parameters and usage statistics among numerous sites. In addition, it provides online access to service manuals, user libraries, newsletters, journal articles, user-approved links to medically-related web sites, and 24 hour a day Bio-Rad support.

Molecular Pathology. An emerging technology-specific subset of many traditional diagnostic markets, molecular pathology is also an emerging technology for the confirmation of genetic disorders using DNA markers. We use our mDx gene-based kits to confirm sickle cell anemia in newborns, as well as Factor V Leiden, thalassemia and other hemoglobin disorders in adults.

Quality Control Systems. Quality Control systems are used to assure the accuracy of test results that are sent to physicians. We believe we are the leading provider of quality control systems and provide the most comprehensive line of quality control products, software and services in the industry. Our UNITY information management programs allow multiple users the ability to store, access and share their quality control data and documents with and between laboratory locations.

The Clinical Diagnostics segment s customers include hospital laboratories, reference laboratories, transfusion laboratories, physician office laboratories, government agencies and insurance and forensic testing laboratories.

The global focus on reducing healthcare costs presents challenges as well as opportunities for all diagnostic companies. Consolidation among healthcare providers has resulted in fewer, more powerful groups, whose purchasing power gives them cost containment leverage. Consequently, the focus on economic outcomes has made it imperative that manufacturers provide cost-effective diagnostics systems and services to remain competitive. Broader product offerings that encompass a wider range of testing capability, greater automation and higher-volume capacity have become essential. In addition, consolidation has made it increasingly necessary for diagnostics manufacturers to automate a wide variety of tests on integrated workstations that link patient, test and quality control data.

Notwithstanding the challenges presented above, we believe that we are well-positioned to capitalize on the following favorable trends influencing the clinical diagnostics industry:

the aging demographic profile within both the U.S. and international markets;

the emphasis on reducing downstream healthcare costs;

the continuation of technological advances;

the effective disease management of conditions requiring costly treatment, such as HIV/AIDS, hepatitis and heart disease;

the vital role that genetic disorders screening plays in identifying predisposition to disease and reducing healthcare costs;

the rapid growth and importance of information management systems within the healthcare industry; and

the expanding demand for improved healthcare services in developing countries.

Our Products

Life Science Segment

The primary use for our Life Science products is the separation, purification and analysis of complex biological materials. Applications of these products are diverse but are generally categorized into seven areas, including electrophoresis, image analysis, liquid chromatography, gene transfer, sample preparation, amplification and immunoassay. Our customers use these products for biochemistry, cellular and molecular

biology, immunology and other areas of life science, including cancer and genetic research as well as manufacturing quality control and food safety applications.

We believe that the breadth of our Life Science segment product line and our ability to provide complete life science research tools distinguishes us from our competitors. Our laboratory apparatus includes products ranging from power supplies and electrophoresis cells to particle delivery equipment and automated capillary and DNA electrophoresis equipment. Researchers use our biomaterial products, such as empty and prefilled chromatography columns, resins, gel cassettes, and buffer reagents in protein and nucleic acid electrophoresis. Our imaging products consist of high-specification imaging equipment and image analysis software for the analysis of protein and DNA separations. Technicians in bioprocessing laboratories use our chromatography media and processing equipment to purify, in large scale, proteins and nucleic acid based medicines. Our food safety products for the testing of BSE, CWD and pathogenic bacteria range from basic microbiology growth plates to fully automated BSE testing instrumentation.

Selected Life Science products and applications by target market include:

Target Market	Products	Applications
<i>Electrophoresis</i> separation of biological materials utilizing an electrical charge	Electrophoresis apparatus, gels, reagents and power supplies	Separation of protein and DNA into components, identification of specific bacteria in certain infections and tracking of the source DNA testing
<i>Image Analysis</i> image capture and analysis of biological materials	Instruments and specialized analysis software	Analysis of protein, DNA and cellular structure
<i>Liquid Chromatography</i> separation and purification of complex biomolecules	Instruments and reagents	Separation and purification of new drugs produced by genetic engineering techniques
Gene Transfer transfer of genetic material	Instruments and reagents	Infusion of DNA into cells to understand gene function
Sample Preparation preparation of samples	Kits and reagents	Purification of nucleic acids
Amplification and Polymerase Chain Reaction (PCR) duplication and amplification of genetic material	Thermal cycler instruments and gene expression assays	PCR amplification of nucleic acids DNA fingerprinting
<i>BSE or CWD Testing</i> testing animals for mad cow or chronic wasting disease	Test kits and instruments	Immunoassay
<i>Food Pathogen Testing</i> testing food or food processing equipment for the presence of pathogenic bacteria	Test kits and Real Time Thermal Cycler Instrument	Microbiology, PCR amplification
<i>BioEducation</i> illustrating the fundamental principles of modern Life Science	Teaching kits and instructional materials with supporting equipment	PCR amplification, chromatography, microbiology, and gene transfer

Our principal life science customers include prominent universities and medical schools, industrial research organizations, government agencies, pharmaceutical manufacturers, biotechnology researchers and food testing laboratories.

Clinical Diagnostics Segment

The Clinical Diagnostics segment supports clinical laboratories worldwide in their challenge to provide quality patient care while containing costs and streamlining work flow. This segment develops and manufactures automated test systems, test kits and quality control systems for hospitals and clinical laboratories to diagnose diseases, monitor patients and assess the quality of laboratory test results.

We develop, manufacture and distribute quality control systems for immunoassay testing, therapeutic drug monitoring and other applications. This segment also provides a broad range of reagents, instrumentation and informatics, and we believe we are the world leader in controls and quality control data management. New clinical offerings include the D-10 Automated Hemoglobin Analyzer, an automated system for laboratories that require a low- to mid-volume instrument for hemoglobin testing, and CSN, an internet-based software program that enables licensed users to review on-line service manuals, connect to medically related web sites, review patient data from any location and access Bio-Rad on-line 24 hours a day. We have also strengthened our leadership position in quality control systems with the introduction of UNITY for Windows[®], a network management program that enables multiple users to store, access and share their quality control data and documents within and between laboratory locations.

Selected Clinical Diagnostics products and applications by target market include:

Target Market	Products	Applications
<i>Autoimmune</i> testing of patient samples for immune response disorders	Immuno-fluorescence kits, enzyme immunoassay kits, automated processing systems and quality control specimens	The testing for systemic lupus erythematosis (SLE), connective tissue disease, scleroderma and rheumatoid arthritis
<i>Blood Typing</i> testing of blood for donors and for patients receiving transfusions	Consumable reagents, test systems and control specimens	Blood typing (Group A, B or O), RH typing (+ or -) and antibody detection and identification
<i>Blood Virus Detection</i> Testing blood for virus infections	Reagents, consumables supplies and manual, semi-automated and automated test systems for HIV and hepatitis	Detection and identification of HIV and hepatitis infections
<i>Diabetes Monitoring</i> analysis of blood providing information for diabetes disease management	Automated hemoglobin testing systems	Measurement of hemoglobin to determine long-term sugar levels
<i>Emergency Toxicology</i> rapid identification of drugs	REMEDi Automated chromatography system, which detects up to 700 drugs within 20 minutes	Treatment of comatose emergency patients
<i>Genetic Disorders Testing</i> use of protein or nucleic acid markers to detect the genetic link	Automated hemoglobin testing systems and immunoassays and DNA test kits	Detection of sickle cell anemia,
to certain clinical diseases		thalassemina, cardiovascular
		complications and iron overload
<i>Microbiology</i> analysis of patient specimens for pathogenic bacterial infections	Culture media, antibiotic susceptibility test systems, rapid immuno-bacteriology tests and DNA-based tests	Culture (growth) of bacterial organisms; detection and identification of bacteria; determination of antibiotic resistance and susceptibility

Target Market	Products	Applications
<i>Molecular Epidemiology</i> analysis of DNA to determine the source of bacterial outbreaks	DNA electrophoresis equipment, test kits and image analysis software	Strain-typing of hospital-borne (nosocomial) infections and outbreaks due to food contamination
<i>Quality Control Systems</i> assures the accuracy of test results and facilitates mandated documentation	Test specimens, analytical software and data management reports	Monitoring testing accuracy of therapeutic drugs, toxic substances, blood chemistries, blood clotting and immune response

Our principal clinical diagnostic customers include hospital laboratories, reference laboratories, transfusion laboratories, physician office laboratories, newborn screening facilities, and insurance and forensic testing laboratories.

Product Research and Development

We conduct extensive product research and development activities in all areas of our business, employing approximately 500 people worldwide in these activities. Research and development have played a major role in our growth and are expected to continue to do so in the future. Our research teams are continually developing new products and new applications for existing products. In our development and testing of new products and applications, we consult with scientific and medical professionals at universities, hospitals and medical schools, and in industry. We spent approximately \$82.9 million, \$76.5 million and \$68.1 million on research and development activities during the years ended December 31, 2002, 2001, and 2000, respectively.

Sales and Distribution

Each of our segments maintains a sales force to sell its products on a direct basis. Each sales force is technically trained in the disciplines associated with its products. Sales are also generated through direct mail advertising, exhibits at trade shows and technical meetings, telemarketing, our website and by extensive advertising in technical and trade publications. Sales and marketing efforts are augmented by technical service departments that assist customers in effective product utilization and in new product applications. We also produce and distribute technical literature and hold seminars for customers on the use of our products.

We believe we are the leading provider of BSE tests throughout the world. A large portion of the revenue for this product is driven by government agencies currently mandating the use of the test. Competition, pricing, changes in test standards, technology or a decrease in government regulation could negatively impact our future revenue from this product.

Most of our international sales are generated by wholly-owned subsidiaries and their branch offices in Australia, Austria, Belgium, Brazil, Canada, the Czech Republic, Denmark, England, Finland, France, Germany, Hong Kong, Hungary, India, Israel, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Norway, People s Republic of China, Poland, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan and Thailand.

Certain of our subsidiaries also have manufacturing facilities. While our international operations are subject to certain risks common to foreign operations in general, such as changes in governmental regulations, import restrictions and foreign exchange fluctuations, our international

operations are principally in developed nations, which we regard as presenting no significantly greater risks to our operations than are present in the United States.

Seasonality, Backlog and Material Customers

Our business is not inherently seasonal, however, the European custom of concentrating vacation during the summer months usually has had a negative impact on third quarter sales volume and operating income.

For the most part, we operate in markets characterized by short lead times and the absence of significant backlogs. Management has concluded that backlog information is not material to our business as a whole.

Our customer base is broad and diversified. In 2002, no single customer accounted for more than 2% of our total net sales.

Our sales are affected by certain external factors. For example, a number of our customers, particularly in the Life Science segment, are substantially dependent on government grants and research contracts for their funding. A significant reduction of government funding would have a detrimental effect on the results of this segment.

Competition

Most markets served by our product groups are competitive. Our competitors range in size from start-ups to large multinational corporations. Reliable independent information on sales and market share of products produced by our competitors is not generally available. We believe, however, based on our own marketing information, that while some competitors are dominant with respect to certain individual products, no one company, including us, is dominant with respect to a material portion of any segment of our business.

Life Science Segment. Because of the breadth of its product lines, Life Science does not face the same competitor for all of its products. Competitors in this market include Amersham Biosciences, Invitrogen, Qiagen, Zeiss and Applied Biosystems, Prionics and Enfer. We compete primarily on meeting performance specifications.

Clinical Diagnostics Segment. Competitors in this segment range in size from small private companies to large multinational corporations. We compete in very specific market niches and do not attempt to pursue the most competitive general diagnostics markets. We compete based on our technological ability to provide customers with very specific tests and believe we are usually a significant competitor within our market niche. Competitors include Abbott Laboratories, bioMerieux, Inc., Johnson & Johnson, Bayer, Roche Diagnostics, BioChem Pharma, Inova, diaSorin and Fisher Scientific.

Patents and Trademarks

We own numerous U.S. and international patents and patent licenses. We believe, however, that our ability to develop and manufacture our products depends primarily on our knowledge, technology and special skills. Under several patent license agreements, we pay and/or collect royalties on the sales of certain products. We view these patents and license agreements as valuable assets.

Regulatory Matters

The manufacturing, marketing and labeling of certain of our products (primarily diagnostic products) are subject to regulation in the United States by the Center for Devices and Radiological Health of the FDA and in other jurisdictions by state and foreign government authorities. FDA regulations require that some new products have pre-marketing approval by the FDA and require certain products to be manufactured in accordance with good manufacturing practices, to be extensively tested and to be properly labeled to disclose test results and performance claims and limitations.

As a multinational manufacturer and distributor of sophisticated instrumentation equipment, we must meet a wide array of electromagnetic compatibility and safety compliance requirements to satisfy regulations in the United States, the European Community and other jurisdictions. The FDA must approve an export permit application before companies can market products outside the U.S. prior to the products receipt of FDA approval. The requirements relating to testing and trials, product licensing, pricing and reimbursement vary widely among countries.

Various governments have regulatory requirements governing the sales and distribution of TSE and BSE products. As a test supplier, we operate under licenses granted by these agencies. Changes in our products, including new generations, must be approved prior to the commencement of sales and marketing activities.

Our operations are subject to federal, state, local and foreign environmental laws and regulations that govern such activities as emissions to air and discharges to water, as well as handling and disposal practices for solid, hazardous and medical wastes. In addition to environmental laws that regulate our operations, we are also subject to environmental laws and regulations that create liabilities and clean-up responsibility for spills, disposals or other releases of hazardous substances into the environment as a result of our operations or otherwise impacting real property that we own or operate. The environmental laws and regulations also subject us to claims by third parties for damages resulting from any spills, disposals or releases resulting from our operations or at any of our properties. For more information, see the section Risk Factors under the heading We are currently subject to environmental regulations and enforcement proceedings.

Properties

We own our corporate headquarters located in Hercules, California. The principal manufacturing and research locations for each segment are as follows:

Approximate

		Square	
Segment	Location	Footage	Owned/Leased
Life Science	Richmond, California	201,000	Owned/Leased
	Hercules, California	114,600	Owned
	Hemel Hempstead, England	102,000	Leased
	Milan, Italy	50,000	Leased
Clinical Diagnostics	Hercules, California	135,000	Owned/Leased
	Irvine, California	185,900	Leased
	Greater Seattle, Washington	127,600	Owned/Leased
	Lille, France	182,000	Owned
	Paris, France	162,000	Leased
	Munich, Germany	55,000	Leased
	Nazareth-Eke, Belgium	30,000	Leased

Most manufacturing and research facilities also house administration, sales and distribution activities. In addition, we lease office and warehouse facilities in a variety of locations around the world. These facilities are used principally for sales, service, distribution and administration for

both segments.

The Life Science segment s Richmond, California distribution and instrument manufacturing facility lease expires in November 2005. The lease on the Marnes la Coquette facility near Paris, France which served as the headquarters for PSD, as well as a significant manufacturing and research facility has been renewed until December 31, 2005.

We are currently building additional facilities at our Northern California headquarters. Historically, adequate space to expand sales and distribution channels has been available and we have leased space as needed.

Employees

At December 31, 2002, we had approximately 4,600 full-time employees. Fewer than 11% of our 2,200 U.S. employees are covered by a collective bargaining agreement which will expire on November 7, 2006. Many of our non-U.S. full-time employees, especially in France, are covered by collective bargaining agreements. We consider our employee relations in general to be good.

Legal Proceedings

We are a party to various claims, legal actions and complaints arising in the ordinary course of business. We do not believe that any ultimate liability resulting from any of these lawsuits will have a material adverse effect on our results of operations, financial position or liquidity. However, we cannot give any assurance regarding the ultimate outcome of these lawsuits and their resolution could be material to our operating results for any particular period, depending upon the level of income for the period.

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MANAGEMENT

Directors, Executive Officers and Key Employees

Our Board of Directors has seven members, with terms expiring as of the date of the annual meeting of stockholders or on election and qualification of their successors. David Schwartz and Alice N. Schwartz are husband and wife; Norman Schwartz is their son. No other family relationships exist among our current and nominated directors or executive officers.

Name	Age	Principal Position(s)
David Schwartz	79	Chairman of the Board
Norman D. Schwartz	53	President and Chief Executive Officer; Director
Brad Crutchfield	41	Vice President and Group Manager, Life Science
John Goetz	53	Vice President and Group Manager, Clinical Diagnostics
Christine A. Tsingos	45	Vice President and Chief Financial Officer
Ronald W. Hutton	46	Treasurer
James R. Stark	51	Corporate Controller
Sanford S. Wadler	56	Vice President; General Counsel; Secretary
James J. Bennett	75	Director
Albert J. Hillman	71	Director
Ruediger Naumann-Etienne	57	Director
Philip L. Padou	69	Director
Alice N. Schwartz	77	Director

David Schwartz co-founded Bio-Rad with his wife Alice Schwartz in 1957 and has served as Chairman of the Board since its inception. He served as President and Chief Executive Officer from 1957 through 2002.

Norman D. Schwartz was appointed President and Chief Executive Officer on January 1, 2003. Prior to this appointment, he served as a Vice President since 1989 and Group Manager, Life Science since 1997. He was elected as a director in 1995. He served as Group Manager, Clinical Diagnostics from 1993 to 1997. He is a director of both OEM Systems and SDD (Synergistic Detector Designs). At Bio-Rad, he served as the General Manager for certain of our subsidiaries in England and Japan from 1989 to 1993, and as our Treasurer from 1981 to 1989.

Brad Crutchfield was appointed Vice President and Group Manager of Life Science in 2003. Previously, he was Manager of our BioMaterials business. He has served Bio-Rad for 17 years, holding positions of increasing responsibility, including senior level operational roles in sales, marketing and division management.

John Goetz was appointed Vice President and Group Manager of Clinical Diagnostics in 2000. Previously, he held various positions within Bio-Rad since joining us in 1974, including Plant Engineer, Manufacturing Manager, Division Manager of QSD and Operations Manager of the Diagnostics Group.

Christine A. Tsingos was appointed Chief Financial Officer in December 2002 and Vice President in February 2003. She is and has been a member of the board of directors of Attest Systems, Inc., where she was the Chief Operating Officer and Chief Financial Officer from August 2002 to November 2002. She was a consultant

to Attest Systems, Inc. from October 2000 to July 2002. She was the Chief Financial Officer at Tavolo, Inc. from 1999 to 2000, and she was Treasurer, and later Vice President and Treasurer, of Autodesk, Inc., from 1990 to 1999.

Ronald W. Hutton was appointed Treasurer in 1997. Prior to his appointment as Treasurer, he was Director of Treasury at Kaiser Aluminum & Chemical Corporation from 1993 to 1997.

James R. Stark has been Corporate Controller since 1992. Previously, he served Bio-Rad as Group Controller of Clinical Diagnostics from 1987 to 1992, and Corporate Accounting Manager from 1984 to 1987.

Sanford S. Wadler has been General Counsel and Secretary since 1989, and was appointed Vice President in 1996. Mr. Wadler joined Bio-Rad as corporate counsel in 1988. Prior to joining Bio-Rad, he was of counsel to the patent law firm of Witherspoon & Hargest from 1984 to 1988.

James J. Bennett has served as a director since 1977. He served as our Chief Operating Officer from 1993 through 2002, and as Executive Vice President from 1996 through 2002. From 1985 until 1993, Mr. Bennett was the Vice President and Group Manager of Clinical Diagnostics. He also served as our Vice President and Chief Operating Officer from 1977 to 1985.

Albert J. Hillman has served as a director since 1980. He has been of counsel to the law firm of Townsend and Townsend and Crew since 1995 and was a partner in that firm from 1965 to 1995.

Ruediger Naumann-Etienne has served as a director since 2001. Since 1989, Mr. Naumann-Etienne has been Owner and Managing Director of Intertec Group. He has been Chairman and Chief Executive Officer of Quinton Cardiology Systems since 2000. Mr. Naumann-Etienne is a director at Varian Medical Systems. He was chairman of OEC Medical Systems from 1993 to 1999, where he also served as Chief Executive Officer from 1995 to 1997. He was President and Chief Operating Officer of Diasonics from 1987 to 1990.

Philip L. Padou has served as a director since 1980. Mr. Padou has been retired since 1991. He previously served as Vice President and Chief Financial Officer of Ozier Perry and Associates, a risk assessment software and consulting company, from 1987 to 1991.

Alice N. Schwartz co-founded Bio-Rad with her husband David Schwartz in 1957 and served as Director of Research for Bio-Rad from 1957 to 1967. She has served as a director since 1967. She was a Research Associate at the University of California from 1972 to 1978 and retired in 1979.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table presents certain information as of August 31, 2003 (except as noted below), with respect to Class A Common Stock and Class B Common Stock beneficially owned by: (i) any person who is known to us to be the beneficial owner of more than five percent of the outstanding Common Stock of either class, (ii) each director of Bio-Rad, (iii) certain of our executive officers, and (iv) all directors and executive officers of Bio-Rad as a group. The address for all executive officers and directors is c/o Bio-Rad Laboratories, Inc., 1000 Alfred Nobel Drive, Hercules, California, 94547.

	Class A		Class B	
	Common Stock(1)		Common Stock	
	Number of		Number of	
	Shares and	Percent	Shares and	Percent
	Nature of	of	Nature of	of
Name and, with Respect to Owner of 5% or More, Address	Ownership(2)	Class	Ownership(2)	Class
Blue Raven Partners, L.P.(3)		0.0%	4,060,054	83.8%
1000 Alfred Nobel Drive				
Hercules, CA 94547				
Private Capital Management, Inc.(4) 8889 Pelican Bay Boulevard, Suite 500 Naples, FL 34108	1,482,374	7.2%		0.0%
Bernard A. Egan (11)	1,351,963	6.6%		0.0%
1900 Old Dixie Highway				
Fort Pierce, FL 34946				
David and Alice N. Schwartz(5)(6)(9) Bio-Rad Laboratories, Inc. 1000 Alfred Nobel Drive Hercules, CA 94547	3,210,383	15.6%	4,531,307	87.6%
Norman D. Schwartz(5)(7)(8)(9)	211,454	1.0%	4,103,012	84.2%
Bio-Rad Laboratories, Inc.				
1000 Alfred Nobel Drive				
Hercules, CA 94547				
Steven Schwartz(5)(7)(10) Bio-Rad Laboratories, Inc. 1000 Alfred Nobel Drive Hercules, CA 94547	164,998	0.8%	4,069,164	84.0%
James J. Bennett(9)	44,692	0.2%	47,454	1.0%
John P. Goetz(9)	43,592	0.2%		0.0%

Albert J. Hillman	8,908	0.0%	8,234	0.2%
Ruediger Naumann-Etienne	5,000	0.0%	200	0.0%
Philip L. Padou		0.0%		0.0%
Sanford S. Wadler(9)	45,930	0.2%		0.0%
All directors and executive officers as a group (12 persons)(9)	3,585,804	17.3%	4,630,153	89.0%

(1) Excludes shares of Class A Common Stock that may be acquired on conversion of Class B Common Stock. Class B Common Stock may be converted to Class A Common Stock on a one for one basis and, if fully converted, would result in the following percentage beneficial ownership of Class A Common Stock: Blue Raven Partners 15.9%; Private Capital Management, Inc. 5.8%; Bernard A. Egan 5.3%; David and Alice N. Schwartz 30.0%; Norman Schwartz 16.9%; Steven Schwartz 16.6%; James J. Bennett 0.4%; John Goetz 0.2%; Albert J. Hillman 0.1%; Ruediger Naumann-Etienne 0.0%; Philip L. Padou 0.0%; Sanford S. Wadler 0.2%; and all directors and executive officers as a group 31.7%. Management considers any substantial conversions by the executive officers or directors listed in the table to be highly unlikely.

(2) Except as otherwise indicated and subject to applicable community property and similar statutes, the persons listed as beneficial owners of the shares have sole voting and investment power with respect to such shares. Number of shares is based on the statements of the stockholders where not identified specifically in the stockholder register.

- (3) David Schwartz, Alice N. Schwartz, Norman Schwartz and Steven Schwartz are general partners of Blue Raven Partners, L.P., a California limited partnership (the Partnership), and, as such, share voting and dispositive power over the Class B Common Stock held by the Partnership.
- (4) Based solely on an amended Schedule 13G filed on February 19, 2003 with the Securities and Exchange Commission pursuant to Rules 13d-1(b) of the Exchange Act. Bruce S. Sherman is the Chief Executive Officer of Private Capital Management and Gregg J. Powers is the President of Private Capital Management. In these capacities, Messrs. Sherman and Powers exercise shared dispositive and shared voting power with respect to shares held by Private Capital Management is clients and managed by Private Capital Management. Messrs. Sherman and Powers exercise shared dispositive and Powers disclaim beneficial ownership for the shares held by Private Capital Management is clients and disclaim the existence of a group.
- (5) Includes 4,060,054 shares of Class B Common Stock held by the Partnership.
- (6) David and Alice N. Schwartz each have a one-half community property interest in these shares. Includes 41,176 shares of Class B Common Stock held by DANSA Partners Limited, a California limited partnership, of which David and Alice N. Schwartz are general partners.
- (7) Norman Schwartz and Steven Schwartz are sons of David and Alice N. Schwartz.
- (8) Includes 9,110 shares owned by Norman Schwartz s wife, as to which Norman Schwartz disclaims any beneficial ownership.
- (9) Includes shares with respect to which such persons have the right to acquire beneficial ownership immediately or within sixty days of August 31, 2003, under our employee stock purchase plan and stock option agreements, as follows: David Schwartz, 328,453 Class B shares; Norman Schwartz, 25,598 Class B shares; James J. Bennett, 9,250 Class A shares; John Goetz, 33,185 Class A shares; Sanford S. Wadler, 39,086 Class A shares; and all directors and officers as a group, 96,121 Class A shares and 354,051 Class B shares.
- (10) Includes 9,110 shares owned by Steven Schwartz s wife, as to which Steven Schwartz disclaims any beneficial ownership.
 (11) Information is as of March 4, 2003.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In 2002, Townsend and Townsend and Crew, the patent law firm to which Albert J. Hillman is Of Counsel, rendered legal services to us. The Board of Directors has relied upon our General Counsel to determine that the services of Townsend and Townsend and Crew were provided on terms at least as fair to us as if they had been provided by a non-affiliate. Our General Counsel is responsible for the management of all of the our relationships with providers of legal services.

DESCRIPTION OF CERTAIN INDEBTEDNESS

On September 9, 2003, we entered into a new credit facility with certain financial institutions (the Lenders), Bank One, N.A., as administrative agent, Wells Fargo Bank, N.A. and Union Bank of California, N.A. as syndication agents, ABN AMRO Bank N.V. and BNP Paribas as documentation agents, and Comerica Bank, U.S. Bank National Association and The Northern Trust Company as managing agents. The following is a summary description of the principal terms of our new credit facility and the other loan documents related thereto. We urge you to read the definitive documentation for a more complete understanding of our new credit facility. You may request a copy of our credit facility at our address set forth in the section Available Information. Our obligations under our new credit facility will constitute Senior Debt and Designated Senior Debt (each as defined in the Description of Notes) with respect to the notes.

The Facility

Structure. Our new credit facility consists of a \$150.0 million revolving facility which may be increased at any time by an additional \$50.0 million in revolving borrowings, subject to the agreement of the administrative agent and the lender or lenders providing the increase and provided that we are not in default under the facility.

We may use the revolving facility to fund our working capital requirements and other general corporate expenditures.

The revolving facility has a maturity of five years. Loans under the revolving facility are available at any time during its five-year term in U.S. dollars or, subject to certain limitations, Euros, subject to various conditions precedent typical of bank loans.

Interest. Borrowings under our new credit facility bear interest at a variable rate per annum equal (at our option) to (a) a reserve adjusted Eurocurrency rate or (b) a base rate equal to the higher of (1) the administrative agent s announced corporate base rate and (2) the Federal Funds effective rate plus $\frac{1}{2}$ of 1% per annum plus, in each case, an applicable margin based on our financial performance and compliance with the terms of our credit facility. The applicable margin currently is 1.25% for Eurocurrency loans and 0.00% for base rate loans.

Fees. We have agreed to pay certain fees with respect to our new credit facility, including fees on the unused portion of the revolving loan commitments and on outstanding letters of credit, arrangement and other similar fees.

Security. Debt outstanding under our new credit facility is secured by substantially all of our assets. In addition, our new credit facility requires that we:

pledge all of the capital stock of each of our future material domestic subsidiaries, which are defined to include any domestic subsidiary with assets having a book value of \$15.0 million or more or any group of domestic subsidiaries (other than guarantors) having combined assets with a book value of \$25.0 million or more; and

pledge up to 65% of the capital stock of any foreign subsidiary owned by the borrower or any guarantor no later than September 30, 2004.

Covenants. Our new credit facility contains a number of covenants that, among other things, restrict our ability and the ability of our subsidiaries to

sell, lease or otherwise dispose of assets;

incur additional debt;

guarantee obligations of others;

prepay or change the terms of other debt;

pay dividends or make other distributions;

redeem or repurchase capital stock;

create liens on assets;

make investments, loans or advances;

make acquisitions;

engage in mergers or consolidations;

change the business conducted by us and our subsidiaries;

enter into sale-leaseback transactions;

make capital expenditures; or

engage in certain transactions with affiliates.

In addition, our new credit facility requires us to comply with specified financial ratios and tests, including maximum consolidated leverage ratio tests, minimum consolidated interest coverage and a minimum net worth test. The facility also contains provisions that prohibit any modifications of the indenture in any manner adverse to the Lenders under the facility and that limit our ability to refinance or otherwise prepay the notes without the consent of the Lenders.

Events of Default. Our new credit facility contains customary events of default, including non-payment of principal, interest or fees, violation of covenants, material inaccuracies of representations or warranties, cross defaults to certain other indebtedness and hedge agreements, certain events of bankruptcy or insolvency, material judgments against us and our subsidiaries, invalidity of any guarantee or security interest, certain ERISA events, environmental events or conditions which could reasonably be expected to have a material adverse effect on us and a change of control under certain circumstances set forth therein.

DESCRIPTION OF NOTES

We issued the private notes, and will issue the exchange notes, pursuant to an indenture (the **Indenture**), dated as of August 11, 2003, by and between us and Wells Fargo Bank, National Association, as trustee (the **Trustee**).

You can find the definitions of certain capitalized terms used in this section under the heading Certain Definitions below. For purposes of this Description of Notes, references to Bio-Rad, we, our, or us include only Bio-Rad Laboratories, Inc. and Bio-Rad s successors in accordance w the terms of the Indenture and, except pursuant to the terms of any Guarantee, not our Subsidiaries.

The terms of the notes include those stated in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended (the **Trust Indenture Act**). The notes are subject to all such terms, and holders of notes are referred to the Indenture and the Trust Indenture Act for a statement thereof.

The following summaries of certain provisions of the Indenture are summaries only, do not purport to be complete and are qualified in their entirety by reference to all of the provisions of the Indenture. We urge you to read the Indenture because it, and not this description, defines your rights as a holder of the notes.

Brief Description of the Notes

The notes:

are general unsecured obligations;

rank junior in right of payment with all of our existing and future Senior Debt (other than trade payables);

rank equally in right of payment with all of our existing and future senior subordinated debt;

rank senior in right of payment with all of our existing and future Subordinated Indebtedness; and

are effectively subordinated to all existing and future debt of our subsidiaries that are not guarantors, including trade payables.

The notes will be issued in fully registered form only, without coupons, in denominations of \$1,000 and integral multiples thereof.

The term Subsidiaries as used in this section does not include Unrestricted Subsidiaries. As of the Issue Date, none of our Subsidiaries were Unrestricted Subsidiaries. However, under certain circumstances, we will be able to designate current or future Subsidiaries as Unrestricted Subsidiaries. Unrestricted Subsidiaries will not be subject to the restrictive covenants set forth in the Indenture.

Principal, Maturity and Interest

We will issue an aggregate principal amount of \$225 million of exchange notes in the exchange offer. The Indenture provides for the issuance of additional notes having identical terms and conditions to the notes (the **Additional Notes**), subject to compliance with the covenants contained in the Indenture, including without limitation the provisions set forth under Certain Covenants Limitation on Incurrence of Additional Indebtedness and Disqualified Capital Stock. Any Additional Notes will be part of the same issue as the notes and will vote on all matters with the notes.

The notes will mature on August 15, 2013.

The notes will bear interest at the rate per annum stated on the cover page hereof from the date of issuance or from the most recent date to which interest has been paid or provided for (the **Interest Payment Date**), payable semi-annually in arrears on February 15 and August 15 of each year, beginning February 15, 2004, to the persons in whose names such notes are registered at the close of business on the February 1 or August 1 immediately preceding such Interest Payment Date. Interest will be calculated on the basis of a 360-day year consisting of twelve 30-day months.

Methods of Receiving Payments on the Notes

Principal of, premium, if any, and interest (and Liquidated Damages, if any) on the notes will be payable, and the notes may be presented for registration of transfer or exchange, at our office or agency maintained for such purpose, which office or agency shall be maintained in the Borough of Manhattan, The City of New York. Except as set forth below, at our option, payment of interest may be made by check mailed to the holders of the notes (the **Holders**) at the addresses set forth upon our registry books. No service charge will be made for any registration of transfer or exchange of notes, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith. Until otherwise designated by us, our office or agency will be the corporate trust office of the Trustee presently located at the office of the Trustee in the Borough of Manhattan, The City of New York.

Subordination

The notes are our general unsecured obligations, contractually subordinated in right of payment to all of our Senior Debt. This means that holders of our Senior Debt must be paid in full before any amounts are paid to the Holders in the event we become bankrupt or are liquidated and that holders of Senior Debt can block payments to the Holders in the event of a default by us on such Senior Debt, all as more fully described below.

As of June 30, 2003, after giving effect to the offering of private notes and the application of the net proceeds therefrom, we would have had no Senior Debt, and no Indebtedness that ranks equal to the notes or is subordinate to the notes in right of payment.

The rights of Holders will be effectively subordinated to all existing and future indebtedness and preferred stock of our subsidiaries, which as of June 30, 2003 (after giving effect to the offering of private notes and the application of the net proceeds therefrom), would have been \$13.6 million.

We may not make payment (by set-off or otherwise), as applicable, on account of any Obligation, including the principal of, premium, if any, or interest on the notes (or Liquidated Damages, if any), or on account of the redemption provisions of the notes (including any repurchases of notes), for cash or property (other than payments made with Junior Securities or from the trust described under Legal Defeasance and Covenant Defeasance):

 in the event of default in the payment of any principal of, premium, if any, or interest on our Designated Senior Debt, when it becomes due and payable, whether at maturity or at a date fixed for prepayment or by declaration or otherwise (a **Payment Default**), unless and until such Payment Default has been cured or waived in writing or otherwise has ceased to exist, or

(2) upon the happening of an event of default other than a Payment Default that permits the holders of Designated Senior Debt to declare such Designated Senior Debt to be due and payable (a Non-payment Default) and written notice of such event of default given to us and the Trustee by the representative under the Credit Agreement (a Payment Notice), unless and until such event of default has been cured or waived in writing or otherwise has ceased to exist.

Notwithstanding the foregoing, unless the Designated Senior Debt in respect of which a Non-payment Default exists has been declared due and payable in its entirety within 179 days after the Payment Notice is

delivered as set forth above (the **Payment Blockage Period**) (and such declaration has not been rescinded or waived), at the end of the Payment Blockage Period, we shall be required to pay all sums not previously paid to the Holders during the Payment Blockage Period due to the foregoing prohibitions and to resume all other payments as and when due on the notes.

Any number of Payment Notices may be given; provided, however, that

- (1) not more than one Payment Notice shall be given within a period of any 360 consecutive days, and
- (2) no Non-payment Default that existed upon the date of such Payment Notice or the commencement of such Payment Blockage Period (whether or not such event of default is on the same issue of Senior Debt) shall be made the basis for the commencement of any other Payment Blockage Period (unless such default has been cured or waived for a period of not less than 120 days).

Upon any distribution of our assets upon any dissolution, winding up, total or partial liquidation or reorganization of us, whether voluntary or involuntary, in bankruptcy, insolvency, receivership or a similar proceeding or upon assignment for the benefit of creditors or any marshalling of assets or liabilities

- (1) the holders of all of our Senior Debt will first be entitled to receive payment in full in cash or Cash Equivalents (or have such payment first duly provided for to the satisfaction of the Holders of the Senior Debt) or otherwise to the extent holders accept satisfaction of amounts due by settlement in other than cash or Cash Equivalents before the Holders are entitled to receive any payment on account of any Obligation, including the principal of, premium, if any, and interest on the notes (or Liquidated Damages, if any) (other than payments made with Junior Securities or from the trust described under Legal Defeasance and Covenant Defeasance), and
- (2) any payment or distribution of our assets of any kind or character from any source, whether in cash, property or securities (other than payments or distributions made with Junior Securities or from the trust described under Legal Defeasance and Covenant Defeasance) to which the Holders or the Trustee on behalf of the Holders would be entitled (by set-off or otherwise), except for the subordination provisions contained in the Indenture, will be paid by the liquidating trustee or agent or other Person making such a payment or distribution directly to the holders of such Senior Debt or their representative to the extent necessary to make payment in full (or have such payment first duly provided for to the satisfaction of the Holders of such Senior Debt remaining unpaid, after giving effect to any concurrent payment or distribution to the holders of such Senior Debt.

In the event that, notwithstanding the foregoing, any payment or distribution of our assets (other than payments or distributions made with Junior Securities or from the trust described under Legal Defeasance and Covenant Defeasance) shall be received by the Trustee or the Holders at a time when such payment or distribution is prohibited by the foregoing provisions, such payment or distribution shall be held in trust for the benefit of the holders of such Senior Debt, and shall be paid or delivered by the Trustee or such Holders, as the case may be, upon a request in writing from or on behalf of the holders of such Senior Debt remaining unpaid or unprovided for to such holders or to their representative or representatives, or to the trustee or trustees under any indenture pursuant to which any instruments evidencing any of such Senior Debt may have been issued, ratably according to the aggregate principal amounts remaining unpaid on account of such Senior Debt held or represented by each, for application to the payment of all such Senior Debt remaining unpaid, to the extent necessary to pay or to provide for the payment of all such Senior Debt remaining unpaid, to the extent necessary to pay or to provide for the payment of all such Senior Debt remaining unpaid, to the extent holders accept satisfaction of amounts due by settlement in other than cash or Cash Equivalents after giving effect to any concurrent payment or distribution to the holders of such Senior Debt.

No provision contained in the Indenture or the notes affects our obligation or the obligations of any Guarantors, which is absolute and unconditional, to pay, when due, principal of, premium, if any, and interest (and, if applicable, Liquidated Damages) on the notes. The subordination provisions of the Indenture and the notes do not prevent the occurrence of any Default or Event of Default under the Indenture or

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limit the rights of the Trustee or any Holder to pursue any other rights or remedies with respect to the notes.

As a result of these subordination provisions, in the event of the liquidation, bankruptcy, reorganization, insolvency, receivership or similar proceeding or an assignment for the benefit of our creditors or a marshalling of our assets and liabilities, Holders may receive ratably less than other creditors of Bio-Rad.

Certain Bankruptcy Limitations

We conduct a substantial portion of our operations through Subsidiaries. Accordingly, our ability to meet our cash obligations may in part depend upon the ability of those Subsidiaries and any future Subsidiaries to make cash distributions to us and to pay intercompany receivables. Furthermore, any right we have to receive the assets of any Subsidiary upon that Subsidiary s liquidation or reorganization (and the consequent right of the Holders to participate in the distribution of the proceeds of those assets) effectively will be subject to the prior claims of that Subsidiary s creditors (including trade creditors), except to the extent that we are recognized as creditors of that Subsidiary.

Redemption

Optional Redemption

At any time prior to August 15, 2008, we may redeem all or part of the notes, upon not less than 30 days nor more than 60 days prior notice to each Holder of the notes to be redeemed, at a redemption price equal to 100% of the principal amount of those notes plus the Applicable Premium as of, and accrued and unpaid interest and Liquidated Damages, if any, thereon to, the applicable Redemption Date.

At any time on or after August 15, 2008, we may redeem the notes for cash at our option, in whole or in part, upon not less than 30 days nor more than 60 days notice to each Holder of notes, at the following redemption prices (expressed as percentages of the principal amount) if redeemed during the 12-month period commencing August 15 of the years indicated below, in each case together with accrued and unpaid interest and Liquidated Damages, if any, thereon to the date of redemption of the notes (**Redemption Date**):

Year	Percentage
2008	103.750%
2009	102.500%
2010	101.250%
2011 and thereafter	100.000%

Notwithstanding the foregoing, at any time prior to August 15, 2006, upon any sale of our common stock for cash, up to 35% of the aggregate principal amount of the notes originally issued pursuant to the Indenture on the Issue Date may be redeemed at our option within 90 days of such sale, on not less than 30 days , but not more than 60 days , notice to each Holder of the notes to be redeemed, with cash received by us from the Net Cash Proceeds of such sale, at a redemption price equal to 107.50% of the principal amount thereof, together with accrued and unpaid interest and Liquidated Damages, if any, thereon to the Redemption Date; *provided, however*, that immediately following such redemption not less than 65% of the aggregate principal amount of the notes originally issued pursuant to the Indenture on the Issue Date remain outstanding.

If the Redemption Date hereunder is on or after an interest record date (**Record Date**) on which the Holders of record have a right to receive the corresponding interest due and Liquidated Damages, if any, and on or before the associated Interest Payment Date, any accrued and unpaid interest and Liquidated Damages, if any, due on such Interest Payment Date will be paid to the Person in whose name a note is registered at the close of business on such Record Date, and such interest and Liquidated Damages, if any, will not be payable to Holders whose notes are redeemed pursuant to such redemption.

In the case of a partial redemption, the Trustee shall select the notes or portions thereof for redemption on a *pro rata* basis, by lot or in such other manner it deems appropriate and fair. The notes may be redeemed in part in multiples of \$1,000 only.

Notice of any redemption will be sent, by first class mail, at least 30 days and not more than 60 days prior to the Redemption Date to the Holder of each note to be redeemed to such Holder s last address as then shown upon the registry books of our registrar. Any notice which relates to a note to be redeemed in part only must state the portion of the principal amount equal to the unredeemed portion thereof and must state that on and after the Redemption Date, upon surrender of such Note, a new note or notes in a principal amount equal to the unredeemed portion thereof will be issued. On and after the Redemption Date, interest will cease to accrue on the notes or portions thereof called for redemption, unless we default in the payment thereof.

No Sinking Fund

The notes do not have the benefit of any sinking fund and we will not be required to make any mandatory redemption payments with respect to the notes.

Covenant Suspension

The Indenture provides that during the Suspension Period, the provisions of the Indenture described under the following headings under Certain Covenants will not apply (collectively, the **Suspended Covenants**)

Limitation on Incurrence of Additional Indebtedness and Disqualified Capital Stock,

Limitation on Restricted Payments,

Limitation on Dividends and Other Payment Restrictions Affecting Subsidiaries,

Limitation on Liens,

Limitation on Sale of Assets and Subsidiary Stock,

Limitation on Transactions with Affiliates,

clause (3)(x) under Limitation on Merger, Sale or Consolidation,

Future Guarantors, and

Release of Guarantors.

During a Suspension Period our Board of Directors may not designate any of our Subsidiaries as Unrestricted Subsidiaries pursuant to the second paragraph of the definition of Unrestricted Subsidiaries.

On and after the Reversion Date, we will from such time and thereafter again be subject to compliance with the Suspended Covenants and Restricted Payments made after the Reversion Date will be calculated in accordance with the terms of Limitation on Restricted Payments as though such covenant had been in effect during the entire period of time from the Issue Date (including during the Suspension Period); *provided* that there will not be deemed to have occurred a Default or Event of Default under the notes with respect to the Suspended Covenants solely as a result of our non-compliance with the Suspended Covenants during the Suspension Period.

For purposes of the Limitation on Sale of Assets and Subsidiary Stock covenant, on the Reversion Date, the Asset Sale Offer Amount will be reset to zero.

For purposes hereof the following terms shall have meanings set forth below:

Suspension Period means the period (a) beginning on the date that:

- (1) the notes have Investment Grade Ratings by both Rating Agencies; *provided* that prior to the assignment of the Investment Grade ratings we have advised the Rating Agencies that the covenants identified above will not apply during the Suspension Period;
- (2) no Default or Event of Default has occurred and is continuing; and
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(3) we have delivered an officers certificate to the Trustee certifying that the conditions set forth in clauses (1) and (2) above are satisfied;

and (b) ending on the date (the **Reversion Date**) that either Rating Agency withdraws its rating or downgrades the rating assigned to the notes so that the notes cease to have Investment Grade Ratings from both Rating Agencies.

Investment Grade Rating means (1) with respect to S&P, any of the rating categories from and including AAA to and including BBB- and (2) with respect to Moody s, any of the rating categories from and including Aaa to and including Baa3.

Moody s means Moody s Investors Service, Inc., and its successors.

Rating Agency means each of (a) S&P and (b) Moody s.

S&P means Standard & Poor s Rating Service, a division of The McGraw-Hill Companies, Inc., and its successors.

Certain Covenants

The Indenture contains certain covenants including, among others, the following:

Repurchase of Notes at the Option of the Holder Upon a Change of Control

In the event that a Change of Control has occurred, each Holder of notes will have the right, at such Holder s option, pursuant to an offer (subject only to conditions required by applicable law, if any) by us (the **Change of Control Offer**), to require us to repurchase all or any part of such Holder s notes (*provided* that the principal amount of such notes must be \$1,000 or an integral multiple thereof) on a date (the **Change of Control Purchase Date**) that is no later than 45 Business Days after the occurrence of such Change of Control, at a cash price equal to 101% of the principal amount thereof (the **Change of Control Purchase Price**), together with accrued and unpaid interest and Liquidated Damages, if any, to the Change of Control Purchase Date.

The Change of Control Offer shall be made within 10 Business Days following a Change of Control (but may be commenced prior to the Change of Control so long as it is contingent on the Change of Control) and shall remain open for 20 Business Days (the **Change of Control Offer Period**). Upon expiration of the Change of Control Offer Period, we shall promptly purchase all notes properly tendered in response to the Change of Control Offer.

Notwithstanding the foregoing, we will not be required to make a Change of Control Offer upon a Change of Control if a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in the Indenture applicable to a Change of Control Offer made by us.

In addition, we will not be required to make a Change of Control Offer, as provided above, if, in connection with or in contemplation of any Change of Control, we have made an offer to purchase (an **Alternate Offer**) any and all notes validly tendered at a cash price equal to or higher than the Change of Control Purchase Price and have purchased all notes properly tendered in accordance with the terms of such Alternate Offer; *provided, however*, that the terms and conditions of such contemplated Change of Control are described in reasonable detail to the Holders in the notice delivered in connection with such Alternate Offer.

Prior to the commencement of a Change of Control Offer, but in any event within 45 days following any Change of Control, we will

(1) (a) repay in full and terminate all commitments of Indebtedness under the Credit Agreement and all other Senior Debt and Guarantor Senior Debt, in each case, the terms of which require repayment upon

a Change of Control or (b) offer to repay in full and terminate all commitments of Indebtedness under the Credit Agreement and all such other Senior Debt and Guarantor Senior Debt and repay the Indebtedness owed to each lender which has accepted such offer in full, or

(2) obtain the requisite consents under the Credit Agreement and all such other Senior Debt and Guarantor Senior Debt to permit the repurchase of the notes as provided herein.

Our failure to comply with the preceding sentence shall constitute an Event of Default described in clause (3) under the heading Events of Default below, but without giving effect to the stated exceptions in that clause.

On or before the Change of Control Purchase Date, we will

- (1) accept for payment notes or portions thereof properly tendered pursuant to the Change of Control Offer,
- (2) deposit with the paying agent for us (the **Paying Agent**) cash sufficient to pay the Change of Control Purchase Price (together with accrued and unpaid interest and Liquidated Damages, if any) of all notes or portions thereof so tendered, and
- (3) deliver to the Trustee the notes so accepted together with an Officers Certificate listing the notes or portions thereof being purchased by us.

The Paying Agent promptly will pay the Holders of notes so accepted an amount equal to the Change of Control Purchase Price (together with accrued and unpaid interest and Liquidated Damages, if any) and the Trustee promptly will authenticate and deliver to such Holders a new note equal in principal amount to any unpurchased portion of the note surrendered. Any notes not so accepted will be delivered promptly by us to the Holder thereof. We will announce publicly the results of the Change of Control Offer on or as soon as practicable after the Change of Control Purchase Date.

The Change of Control purchase feature of the notes may make more difficult or discourage a takeover of us, and, thus, the removal of incumbent management.

The phrase all or substantially all of our assets will likely be interpreted under applicable state law and will be dependent upon particular facts and circumstances. As a result, there may be a degree of uncertainty in ascertaining whether a sale or transfer of all or substantially all of our assets has occurred. In addition, we cannot assure you that we will be able to acquire notes tendered upon the occurrence of a Change of Control.

Any Change of Control Offer will be made in compliance with all applicable laws, rules and regulations, including, if applicable, Regulation 14E under the Exchange Act and the rules thereunder and all other applicable federal and state securities laws. To the extent that the provisions of any securities laws or regulations conflict with the provisions of this covenant, our compliance or compliance by any of the Guarantors with such laws and regulations shall not in and of itself cause a breach of their obligations under such covenant.

If the Change of Control Purchase Date hereunder is on or after an interest payment Record Date and on or before the associated Interest Payment Date, any accrued and unpaid interest (and Liquidated Damages, if any) due on such Interest Payment Date will be paid to the Person in whose name a note is registered at the close of business on such Record Date, and such interest (and Liquidated Damages, if applicable) will not be payable to Holders who tender the notes pursuant to the Change of Control Offer.

Limitation on Incurrence of Additional Indebtedness and Disqualified Capital Stock

We will not and we will not permit any of our Subsidiaries to, directly or indirectly, issue, assume, guarantee, incur, become directly or indirectly liable with respect to, or otherwise become responsible for, contingently or otherwise (individually and collectively, to **incur** or, as appropriate, an **incurrence**), any Indebtedness (including Disqualified Capital Stock and Acquired Indebtedness).

Notwithstanding the foregoing if

- (1) no Default or Event of Default shall have occurred and be continuing at the time of, or would occur after giving effect on a pro forma basis to, such incurrence of Indebtedness, and
- (2) on the date of such incurrence (the Incurrence Date), our Consolidated Coverage Ratio for the Reference Period immediately preceding the Incurrence Date, after giving effect on a pro forma basis to such incurrence of such Indebtedness and, to the extent set forth in the definition of Consolidated Coverage Ratio, the use of proceeds thereof, would be at least 2.00 to 1.00 (the Debt Incurrence Ratio),

then we and our Subsidiaries may incur such Indebtedness (including Disqualified Capital Stock); *provided* that in the case where such Subsidiary incurring such Indebtedness is not a Guarantor and after giving effect to such incurrence will not be a Guarantor, the Indebtedness so incurred is Acquired Indebtedness not incurred in connection with, or in anticipation or contemplation of, such Person becoming a Subsidiary of ours, or the purchase or other acquisition referred to in the definition of Acquired Indebtedness.

In addition, the foregoing limitations of the first paragraph of this covenant will not prohibit the following:

- (1) our incurrence or the incurrence by any Subsidiary of Purchase Money Indebtedness; provided that
 - (a) the aggregate amount of such Indebtedness incurred and outstanding at any time pursuant to this paragraph (1) (plus any Refinancing Indebtedness issued to retire, defease, refinance, replace or refund such Indebtedness) shall not exceed \$25 million (or the equivalent thereof, at the time of incurrence, in the applicable foreign currency), and
 - (b) in each case, such Indebtedness shall not constitute more than 100% of our cost or the cost to such Subsidiary (determined in accordance with GAAP), as applicable, of the property so purchased, constructed, improved or leased;
- (2) our incurrence or the incurrence by any of our Guarantors of Indebtedness in an aggregate amount incurred and outstanding at any time pursuant to this paragraph (2) (plus any Refinancing Indebtedness incurred to retire, defease, refinance, replace or refund such Indebtedness) of up to \$50 million (or the equivalent thereof, at the time of incurrence, in the applicable foreign currencies);
- (3) our incurrence or the incurrence by any Guarantor of Indebtedness pursuant to the Credit Facilities in an aggregate amount incurred and outstanding at any time pursuant to this paragraph (3) (plus any Refinancing Indebtedness incurred to retire, defease, refinance, replace or refund such Indebtedness) of up to \$200 million;
- (4) the incurrence by our Subsidiaries that are not Guarantors of Indebtedness so long as, immediately after giving effect thereto, the aggregate principal amount of any such Indebtedness incurred and outstanding pursuant to this clause (4) (plus any Refinancing Indebtedness incurred to retire, defease, refinance, replace or refund such Indebtedness) does not exceed 10% of our consolidated total assets;
- (5) the incurrence by us of Indebtedness evidenced by the notes issued on the Issue Date and the exchange notes issued pursuant to the Registration Rights Agreement;

- (6) the incurrence by us or our Subsidiaries or the Guarantors of Refinancing Indebtedness with respect to any Indebtedness (including Disqualified Capital Stock) described in clause (5) above or clause (12) below, or incurred pursuant to the Debt Incurrence Ratio or which was refinanced pursuant to this clause (6);
- (7) the incurrence by us or the Guarantors of Indebtedness solely in respect of bankers acceptances, letters of credit and performance bonds (to the extent that such incurrence does not result in the incurrence of any obligation to repay any obligation relating to borrowed money of others), all in the ordinary course of business in accordance with customary industry practices, in amounts and for the purposes

customary in our industry; *provided* that the aggregate principal amount outstanding of such Indebtedness incurred pursuant to this clause (7) (including any Refinancing Indebtedness and any other Indebtedness issued to retire, refinance, refund, defease or replace such Indebtedness) shall at no time exceed \$25 million;

- (8) the incurrence by us or our Subsidiaries of Indebtedness represented by performance bonds and letters of credit for the account of Bio-Rad or any such Subsidiary, as the case may be, in order to provide security for Value Added Tax (VAT) or customs obligations under bonds posted to a governmental authority, security for workers compensation claims and payment obligations in connection with self-insurance, in each case, that are incurred in the ordinary course of business in accordance with customary industry practice in amounts, and for the purposes, customary in our industry;
- (9) the incurrence by us of Indebtedness owed to (and borrowed from) any of our Subsidiaries, and the incurrence by any of our Subsidiaries of Indebtedness owed to (and borrowed from) any other Subsidiary of ours or us; *provided* that in any case where we are the obligor, such obligations shall be unsecured and contractually subordinated in all respects to our obligations pursuant to the notes, and any event that causes such Subsidiary no longer to be a Subsidiary (including by designation to be an Unrestricted Subsidiary) shall be deemed to be a new incurrence subject to this covenant;
- (10) the guarantee by any Subsidiary of any of our Indebtedness or the Indebtedness of another Subsidiary that was permitted to be incurred pursuant to the Indenture, substantially concurrently with such incurrence or at the time such Person becomes a Subsidiary; *provided* that a Guarantor cannot guarantee debt of a Subsidiary that is not a Guarantor;
- (11) the incurrence by us or our Subsidiaries of Interest Swap and Hedging Obligations that are incurred for the purpose of fixing or hedging interest rate or currency risk with respect to any fixed or floating rate Indebtedness that is permitted by the Indenture to be outstanding or any receivable or liability the payment of which is determined by reference to a foreign currency; *provided* that the notional amount of any such Interest Swap and Hedging Obligation does not exceed the principal amount of Indebtedness to which such Interest Swap and Hedging Obligation relates;
- (12) the incurrence by us or our Subsidiaries of Existing Indebtedness;
- (13) the incurrence by us of Indebtedness arising from agreements of Bio-Rad or our Subsidiaries providing for indemnification, adjustment of purchase price or similar obligations, in each case, incurred or assumed in connection with the disposition of any business, assets or a Subsidiary otherwise permitted by the Indenture;
- (14) the accrual of interest, accretion or amortization of original issue discount, the payment of interest on any Indebtedness in the form of additional Indebtedness with the same terms, and the payment of dividends on Disqualified Capital Stock in the form of additional shares of the same class of Disqualified Capital Stock; *provided*, in each such case, that the amount thereof is included in Consolidated Fixed Charges of Bio-Rad as accrued; and
- (15) the incurrence by us or our Subsidiaries of Indebtedness to the extent the proceeds thereof are used to purchase notes pursuant to a Change of Control Offer or an Alternate Offer.

Indebtedness (including Disqualified Capital Stock) of any Person which is outstanding at the time such Person becomes one of our Subsidiaries (including upon designation of any subsidiary or other Person as a Subsidiary) or is merged with or into or consolidated with us or one of our Subsidiaries shall be deemed to have been incurred at the time such Person becomes one of our Subsidiaries or is merged with or into or consolidated with us or one of our Subsidiaries, as applicable.

Notwithstanding any other provision of this covenant, but only to avoid duplication, a guarantee of our Indebtedness or of the Indebtedness of another Subsidiary of ours incurred in accordance with the terms of the Indenture issued at the time such Indebtedness was incurred or if later at the time the guarantor thereof became

one of our Subsidiaries will not constitute a separate incurrence, or amount outstanding, of Indebtedness. Upon each incurrence we may designate pursuant to which provision of this covenant such Indebtedness is being incurred and, at the time of each subsequent incurrence in accordance with this covenant, may reclassify such item of Indebtedness (or any part thereof) in any manner that complies with this covenant.

Limitation on Restricted Payments

We will not and we will not permit any of our Subsidiaries to, directly or indirectly, make any Restricted Payment if after giving effect to such Restricted Payment on a pro forma basis

- (1) a Default or an Event of Default shall have occurred and be continuing,
- (2) we are not permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Debt Incurrence Ratio or
- (3) the aggregate amount of all Restricted Payments made by us and our Subsidiaries, including after giving effect to such proposed Restricted Payment, on and after January 1, 2003, would exceed, without duplication, the sum of
 - (a) 50% of our aggregate Consolidated Net Income for the period (taken as one accounting period) commencing on January 1, 2003, to and including the last day of the fiscal quarter ended immediately prior to the date of each such calculation for which our consolidated financial statements are available (or, in the event our Consolidated Net Income for such period is a deficit, then minus 100% of such deficit), *plus*
 - (b) the aggregate Net Cash Proceeds received by us after January 1, 2003, from a Capital Contribution or from the sale of our Qualified Capital Stock (other than (I) to one of our Subsidiaries and (II) to the extent applied in connection with a Qualified Exchange after January 1, 2003), *plus*
 - (c) except in each case, in order to avoid duplication, to the extent any such payment or proceeds have been included in the calculation of Consolidated Net Income, an amount equal to the net reduction in Investments (other than returns of or from Permitted Investments) in any Person resulting from distributions on or repayments of any Investments, including payments of interest on Indebtedness, dividends, repayments of loans or advances, or other distributions or other transfers of assets, in each case to us or any Subsidiary or from the Net Cash Proceeds from the sale of any such Investment (valued in each case as provided in the definition of Investments), not to exceed, in each case, the amount of Investments made after January 1, 2003 by us or any Subsidiary in such Person (which Investments constituted (or would have constituted) Restricted Payments), *plus*
 - (d) 50% of any cash dividends received by us or any of our Subsidiaries after January 1, 2003 from an Unrestricted Subsidiary of ours, to the extent that such dividends were not otherwise included in our Consolidated Net Income for such period, *plus*
 - (e) to the extent that any Unrestricted Subsidiary of ours is redesignated as a Subsidiary of ours after January 1, 2003, the lesser of (i) the fair market value of the Investment by us in such Unrestricted Subsidiary as of the date on which such Subsidiary was originally designated as an Unrestricted Subsidiary (the **Designation Date**) *plus* the fair market value of any additional Investments in such Unrestricted Subsidiary made by us after the Designation Date, if any, and (ii) the fair market value of such Investments as measured on the date of such redesignation as a Subsidiary, in each case to the extent such amount was not otherwise included in our Consolidated Net Income.

The foregoing clauses (2) and (3) of the immediately preceding paragraph, however, will not prohibit the following:

(1) any dividend, distribution or other payments by any of our Subsidiaries on its Equity Interests that is paid pro rata to all holders of such Equity Interests;

- (2) a Qualified Exchange;
- (3) the payment of any dividend on Qualified Capital Stock within 60 days after the date of its declaration if such dividend could have been made on the date of such declaration in compliance with the foregoing provisions;
- (4) repurchases of our Capital Stock deemed to occur on the exercise of stock options;
- (5) payments in lieu of fractional shares not to exceed \$2 million in the aggregate;
- (6) repurchases of our Capital Stock in accordance with a repurchase program that is approved and adopted by our Board of Directors and whose primary purpose is to provide Capital Stock to satisfy our obligations under stock option plans and employee stock purchase plans not to exceed \$3 million per annum;
- (7) that portion of Investments the payment for which consists exclusively of our Qualified Capital Stock; or
- (8) other Restricted Payments not to exceed \$30 million in the aggregate.

The full amount of any Restricted Payment made pursuant to the foregoing clauses (1), (3), (5), (6) and (8) (but not pursuant to clause (2), (4) and (7)) of the immediately preceding sentence, however, will be counted as Restricted Payments made for purposes of the calculation of the aggregate amount of Restricted Payments available to be made referred to in clause (3) of the first paragraph of this covenant.

For purposes of this covenant, the amount of any Restricted Payment made or returned, if other than in cash, shall be the fair market value thereof, as determined in the good faith reasonable judgment of our Board of Directors, unless stated otherwise, at the time made or returned, as applicable. Additionally, not later than the date of making each Restricted Payment, we shall deliver an Officers Certificate to the Trustee describing in reasonable detail the nature of such Restricted Payment, stating the amount of such Restricted Payment, stating in reasonable detail the provisions of the Indenture pursuant to which such Restricted Payment was made and certifying that such Restricted Payment was made in compliance with the terms of the Indenture.

Limitation on Dividends and Other Payment Restrictions Affecting Subsidiaries

We will not and we will not permit any of our Subsidiaries to, directly or indirectly, create, assume or suffer to exist any consensual restriction on the ability of any of our Subsidiaries to pay dividends or make other distributions to or on behalf of, or to pay any obligation to or on behalf of, or otherwise to transfer assets or property to or on behalf of, or make or pay loans or advances to or on behalf of, us or any of our Subsidiaries, except

- (1) restrictions imposed by the notes or the Indenture or by our other Indebtedness ranking senior or *pari passu* with the notes; *provided* that except as set forth in clause (5) below such restrictions are no more restrictive taken as a whole than those imposed by the Indenture and the notes,
- (2) restrictions imposed by applicable law,

- (3) existing restrictions under Existing Indebtedness,
- (4) restrictions under any Acquired Indebtedness not incurred in violation of the Indenture or any agreement (including any Equity Interest) relating to any property, asset, or business acquired by us or any of our Subsidiaries, which restrictions in each case existed at the time of acquisition, were not put in place in connection with or in anticipation of such acquisition and are not applicable to any Person, other than the Person acquired, or to any property, asset or business, other than the property, assets and business so acquired,
- (5) any restriction imposed by Indebtedness incurred under the Credit Facilities; *provided* that such restriction or requirement is no more restrictive taken as a whole than that imposed by the Credit Agreement as of the Issue Date,

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- (6) restrictions with respect solely to any of our Subsidiaries imposed pursuant to a binding agreement which has been entered into for the sale or disposition of all or substantially all of the Equity Interests or assets of such Subsidiary; *provided* that such restrictions apply solely to the Equity Interests or assets of such Subsidiary which are being sold,
- (7) restrictions on transfer contained in Purchase Money Indebtedness; *provided* that such restrictions relate only to the transfer of the property acquired with the proceeds of such Purchase Money Indebtedness,
- (8) provisions with respect to the disposition or distribution of assets or property in joint venture agreements, asset sale agreements, stock sale agreements and other similar agreements entered into in the ordinary course of business,
- (9) restrictions on cash or other deposits or net worth imposed by customers under contracts entered into in the ordinary course of business, and
- (10) in connection with and pursuant to refinancings or replacements of restrictions imposed pursuant to clauses (1), (3), (4), (5) or (7) or this clause (10) of this paragraph that are not more restrictive than those contained in the Indebtedness being refinanced or replaced or contained in the Indebtedness referred to in clauses (1), (3), (4) or (7) of this paragraph (taken as a whole and as in effect on the date of such refinancing or replacement, as the case may be) and do not apply to any other Person or assets than those that would have been covered by the restrictions in the Indebtedness so refinanced.

Notwithstanding the foregoing, (a) customary provisions restricting subletting or assignment of any lease entered into in the ordinary course of business, consistent with industry practice and (b) any asset subject to a Lien which is not prohibited to exist with respect to such asset pursuant to the terms of the Indenture may be subject to customary restrictions on the transfer or disposition thereof pursuant to such Lien.

Limitations on Layering Indebtedness

We will not and we will not permit any of the Guarantors to, directly or indirectly, incur or suffer to exist any Indebtedness that is contractually subordinate in right of payment to any other Indebtedness of ours or of such Guarantor, as the case may be, unless, by its terms, such Indebtedness is contractually subordinate in right of payment to, or ranks *pari passu* with, the notes (in the case of our Indebtedness) or the Guarantee of the notes (in the case of Indebtedness of a Guarantor).

Limitation on Liens

We will not, and we will not permit any of our Subsidiaries to, create, incur, assume or suffer to exist any Lien of any kind securing Indebtedness, other than Permitted Liens, upon any of our or their respective assets now owned or acquired on or after the date of the Indenture or upon any income or profits therefrom unless we provide, and cause our Subsidiaries to provide, concurrently therewith, that the notes are equally and ratably so secured; *provided* that if such Indebtedness is Subordinated Indebtedness or is by its terms expressly subordinated to the Guarantee of such Subsidiary (in the case where such Subsidiary is a Guarantor), the Lien securing such Indebtedness shall be subordinate and junior to the Lien securing the notes or such Guarantee, as the case may be, with the same relative priority as such Subordinated Indebtedness shall have with respect to the notes or such Guarantee, as the case may be.

Limitation on Sale of Assets and Subsidiary Stock

We will not, and we will not permit any of our Subsidiaries to, in one or a series of related transactions, convey, sell, transfer, assign or otherwise dispose of, directly or indirectly, any of our or their property, business or assets, including by merger or consolidation (in the case of one of our Subsidiaries), and including any sale or other transfer or issuance of any Equity Interests of any of our Subsidiaries, whether by us or one of our

Subsidiaries or through the issuance, sale or transfer of Equity Interests by one of our Subsidiaries and including any sale and leaseback transaction (any of the foregoing, an Asset Sale) unless

- (1) (a) an amount equal to the Net Cash Proceeds therefrom (the Asset Sale Offer Amount) is applied within 365 days after the date of such Asset Sale to the repurchase of the notes and such other Indebtedness on a parity with the notes and with similar provisions requiring us to make an offer to purchase such Indebtedness with the proceeds from such Asset Sale pursuant to a cash offer (subject only to conditions required by applicable law, if any) (*pro rata* in proportion to the respective principal amounts (or accreted values in the case of Indebtedness issued with an original issue discount) of the notes and such other Indebtedness then outstanding) (the Asset Sale Offer) at a purchase price of 100% of the principal amount (or accreted value in the case of Indebtedness issued with an original issue discount) (the Asset Sale Offer Price) together with accrued and unpaid interest and Liquidated Damages, if any, to the date of payment, or
 - (b) within 365 days following such Asset Sale, the Asset Sale Offer Amount is
 - (I) invested in property or assets (other than notes, bonds, obligations and securities) which will immediately constitute or be a part of a Related Business of the Company or such Subsidiary (if it continues to be a Subsidiary) immediately following such transaction, or
 - (II) used to retire Indebtedness secured by the asset which was the subject of the Asset Sale, Indebtedness outstanding under the Credit Facilities or a Foreign Subsidiary Credit Agreement, or other Senior Debt, on a *pro rata* basis, and to permanently reduce (in the case of Senior Debt that is not such Indebtedness secured by the asset which was the subject of the Asset Sale) the amount of such Indebtedness outstanding on the Issue Date or permitted pursuant to paragraph (3) of the covenant described above under the heading Limitation on Incurrence of Additional Indebtedness and Disqualified Capital Stock, to the extent such permanent reduction is required by the Credit Facilities, Foreign Subsidiary Credit Agreement or agreement governing such other Senior Debt (and, in the case of a revolver or similar arrangement that makes credit available on a committed basis, to permanently reduce the applicable commitment(s) by such amount, to the extent such reduction is required by such agreement, whichever is less), except that, in the case of each of the provisions of clauses (a) and (b), only proceeds from an Asset Sale of assets or capital stock of a Foreign Subsidiary may be invested in or used to retire Indebtedness of a Foreign Subsidiary,
- (2) at least 75% of the total consideration for such Asset Sale or series of related Asset Sales consists of cash or Cash Equivalents,
- (3) no Default or Event of Default shall have occurred and be continuing at the time of, or would occur after giving effect, on a pro forma basis, to such Asset Sale, and
- (4) our Board of Directors determines in good faith that we or such Subsidiary received, as applicable, fair market value for such Asset Sale.

An acquisition of notes pursuant to an Asset Sale Offer may be deferred until the accumulated Net Cash Proceeds from Asset Sales not applied as set forth in 1(a) or (b) above (the **Excess Proceeds**) exceed \$20 million, and each Asset Sale Offer shall remain open for 20 Business Days following its commencement (the **Asset Sale Offer Period**).

Upon expiration of the Asset Sale Offer Period, we shall apply the Asset Sale Offer Amount plus an amount equal to accrued and unpaid interest and Liquidated Damages, if any, to the purchase of all Indebtedness properly tendered in accordance with the provisions hereof (on a *pro rata* basis if the Asset Sale Offer Amount is insufficient to purchase all Indebtedness so tendered) at the Asset Sale Offer Price (together with accrued interest and Liquidated Damages, if any). To the extent that the aggregate amount of notes and such other *pari passu* Indebtedness tendered

pursuant to an Asset Sale Offer is less than the Asset Sale Offer Amount, we may use any remaining Net Cash Proceeds for general corporate purposes as otherwise permitted by the Indenture and

following the consummation of each Asset Sale Offer the Excess Proceeds amount shall be reset to zero. For purposes of (2) above, total consideration received means the total consideration received for such Asset Sales minus the amount of (a) Indebtedness secured solely by the assets sold and assumed by a transferee; *provided* that we are and our Subsidiaries are fully released from obligations in connection therewith, and (b) property that within 30 days of such Asset Sale is converted into cash or Cash Equivalents; *provided* that such cash and Cash Equivalents shall be treated as Net Cash Proceeds attributable to the original Asset Sale for which such property was received.

Notwithstanding, and without complying with, the provisions of this covenant

- (1) we may and our Subsidiaries may, in the ordinary course of business, (a) convey, sell, transfer, assign or otherwise dispose of inventory and other assets acquired and held for resale in the ordinary course of business, (b) liquidate Cash Equivalents and (c) liquidate securities that consist of shares of capital stock that are traded on a nationally recognized stock exchange,
- (2) we may and our Subsidiaries may convey, sell, transfer, assign or otherwise dispose of assets pursuant to and in accordance with the covenant Limitation on Merger, Sale or Consolidation,
- (3) we may and our Subsidiaries may sell or dispose of damaged, worn out or other obsolete property in the ordinary course of business so long as such property is no longer necessary for the proper conduct of our business or the business of such Subsidiary, and we may convey, sell, transfer, assign or otherwise dispose of assets to any Subsidiary provided such transaction is otherwise in compliance with the covenant described below under the heading Transactions with Affiliates, except that we are not required to comply with the provisions of clause (3) of such covenant,
- (4) our Subsidiaries may convey, sell, transfer, assign or otherwise dispose of assets to us or any other Subsidiary,
- (5) we may and our Subsidiaries may, in the ordinary course of business, convey, sell, transfer, assign, or otherwise dispose of assets (or related assets in related transactions) with a fair market value of less than \$3 million,
- (6) we may and our Subsidiaries may exchange assets held by us or such Subsidiaries for assets held by or Equity Interests of any Person or entity; *provided* that (a) the assets received by us or such Subsidiaries in any such exchange will immediately constitute, be a part of, or be used in, and, in the case of Equity Interests of another Person, such Person is engaged solely in, a Related Business of the Company or such Subsidiaries, (b) our Board of Directors has in good faith and acting reasonably determined that the terms of any such exchange are fair and reasonable, and (c) any such exchange shall be deemed to be an Asset Sale and we shall be required to comply with the provisions of this covenant to the extent that we or any of our Subsidiaries receives cash or Cash Equivalents in such exchange,
- (7) our Subsidiaries may issue their Equity Interests to us or to another Subsidiary,
- (8) Permitted Liens may be granted, and
- (9) we may and our Subsidiaries may make or liquidate any Restricted Payment or Permitted Investment that is permitted by the covenant described under the caption Limitation on Restricted Payments.

All Net Cash Proceeds from an Event of Loss in excess of \$20 million (other than the proceeds of any business interruption insurance) shall be reinvested or used as otherwise provided above in clauses 1(a) or (b) of the first paragraph of this covenant.

Any Asset Sale Offer shall be made in compliance with all applicable laws, rules, and regulations, including, if applicable, Regulation 14E of the Exchange Act and the rules and regulations thereunder and all other applicable Federal and state securities laws. To the extent that the provisions of any securities laws or regulations conflict with the provisions of this paragraph, our compliance or the compliance of any of our subsidiaries with such laws and regulations shall not in and of itself cause a breach of our obligations under such covenant.

If the payment date in connection with an Asset Sale Offer hereunder is on or after an interest payment Record Date and on or before the associated Interest Payment Date, any accrued and unpaid interest (and Liquidated Damages, if any) due on such Interest Payment Date will be paid to the Person in whose name a note is registered at the close of business on such Record Date, and such interest (or Liquidated Damages, if applicable) will not be payable to Holders who tender notes pursuant to such Asset Sale Offer.

Limitation on Transactions with Affiliates

We will not, and we will not permit any of our Subsidiaries on or after the Issue Date to, enter into or suffer to exist any contract, agreement, arrangement or transaction with any Affiliate (an **Affiliate Transaction**), or any series of related Affiliate Transactions (other than Exempted Affiliate Transactions) unless

- (1) it is determined by our senior management or Board of Directors that the terms of such Affiliate Transaction are fair and reasonable to us, and no less favorable to us than could have been obtained in an arm s length transaction with a non-Affiliate,
- (2) if involving consideration to either party in excess of \$5 million, such Affiliate Transaction(s) is evidenced by an Officers Certificate addressed and delivered to the Trustee certifying that such Affiliate Transaction (or Transactions) has been approved by a majority of the members of our Board of Directors that are disinterested in such transaction, and
- (3) if involving consideration to either party in excess of \$7 million, we obtain a written favorable opinion as to the fairness of such transaction to us from a financial point of view from an independent investment banking firm of national reputation in the United States or, if pertaining to a matter for which such investment banking firms do not customarily render such opinions, an appraisal or valuation firm of national reputation in the United States.

Limitation on Merger, Sale or Consolidation

We will not consolidate with or merge with or into another Person or, directly or indirectly, sell, lease, convey or transfer all or substantially all of our assets (computed on a consolidated basis), whether in a single transaction or a series of related transactions, to another Person or group of affiliated Persons unless

- (1) either (a) we are the continuing entity or (b) the resulting, surviving or transferee entity (the **Surviving Person**) is a corporation organized under the laws of the United States, any state thereof or the District of Columbia and expressly assumes all of our obligations in connection with the notes, the Indenture and the Registration Rights Agreement,
- (2) no Default or Event of Default shall exist or shall occur immediately after giving effect on a pro forma basis to such transaction,
- (3) unless such transaction is solely the merger of us with or into any person solely for the purpose of effecting a change in our state of incorporation or us and one of our Subsidiaries and which transaction is not for the purpose of evading this provision, immediately after giving effect to such transaction on a pro forma basis, (x) the Surviving Person would immediately thereafter be permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Debt Incurrence Ratio set forth in the covenant described above under the heading Limitation on Incurrence of Additional Indebtedness and Disqualified Capital Stock, and (y) the Consolidated Net Worth of the Surviving Person is at least equal to our Consolidated Net Worth immediately prior to such transaction, and

(4) each Guarantor, if any, unless such Guarantor is the Person with which we have entered into a transaction under this covenant, shall have by amendment to its Guarantee confirmed that its Guarantee shall apply to our obligations or the obligations of the surviving entity, as applicable, in accordance with the notes and the Indenture;

provided that clauses (2) and (3) above shall not apply to any consolidation or merger or the sale, lease, conveyance or transfer or other disposition of all or substantially all of our assets between us and a Subsidiary.

Upon any consolidation or merger or any transfer of all or substantially all of our assets in accordance with the foregoing, the successor corporation formed by such consolidation or into which we are merged or to which such transfer is made shall succeed to and (except in the case of a lease) be substituted for, and may exercise every right and power of, Bio-Rad under the Indenture with the same effect as if such successor corporation had been named therein as Bio-Rad, and (except in the case of a lease) we shall be released from the obligations under the notes and the Indenture except with respect to any obligations that arise from, or are related to, such transaction.

For purposes of the foregoing, the transfer (by lease, assignment, sale or otherwise) of all or substantially all of the properties and assets of one or more Subsidiaries, our interest in which constitutes all or substantially all of our properties and assets, shall be deemed to be the transfer of all or substantially all of our properties and assets.

Future Guarantors

We will not permit any Subsidiary individually or together with all other Subsidiaries that are not Guarantors to (a) become Material Domestic Subsidiaries or (b) guarantee any of our Indebtedness or any Indebtedness of any Domestic Subsidiary, unless the Subsidiary that becomes a Material Domestic Subsidiary or the Subsidiary that guaranteed such Indebtedness, as the case may be, simultaneously executes a supplemental indenture to the Indenture providing for the Guarantee of the payment of the notes by such Subsidiary or Subsidiaries, which Guarantee(s) shall be irrevocable and unconditional in respect of all principal, premium, if any, and interest on the notes on a senior subordinated basis.

The Guarantee of the notes of each Guarantor will be subordinated to the prior payment in full of all its Guarantor Senior Debt to the same extent that the notes are subordinated to our Senior Debt. The obligations of each Guarantor under its Guarantee of the notes will be limited as necessary to prevent such Guarantee from constituting a fraudulent conveyance under applicable law.

Release of Guarantors

No Guarantor will consolidate or merge with or into (whether or not such Guarantor is the surviving Person) another Person unless, subject to the provisions of the following paragraph and certain other provisions of the Indenture,

- (1) the Person formed by or surviving any such consolidation or merger (if other than such Guarantor) assumes all the obligations of such Guarantor pursuant to a supplemental indenture in form reasonably satisfactory to the Trustee, pursuant to which such Person shall unconditionally guarantee, on a senior subordinated basis, all of such Guarantor s obligations under such Guarantor s Guarantee on the terms set forth in the Indenture, and
- (2) immediately before and immediately after giving effect to such transaction on a pro forma basis, no Default or Event of Default shall have occurred or be continuing.

The provisions of the covenant shall not apply to the merger of any Guarantors with and into each other or with or into us.

Upon the sale or disposition (whether by merger, stock purchase, Asset Sale or otherwise) of a Guarantor or all of its assets to an entity which is not a Guarantor, or the designation of a Subsidiary to become an Unrestricted Subsidiary, which transaction is otherwise in compliance with the Indenture (including, without limitation, the provisions of the covenant described above under the heading Limitation on Sale of Assets and Subsidiary Stock), such Guarantor will be deemed released from its obligations under its Guarantee of the notes; *provided, however*, that any such termination shall occur only to the extent that all obligations of such Guarantor under all of its guarantees of any of our Indebtedness or any Indebtedness of any other of our Subsidiaries shall also terminate upon such release, sale or transfer and none of its Equity Interests are pledged for the benefit of any holder of any of our Indebtedness or any Indebtedness of any of our Subsidiaries.

Reports

Whether or not we are subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, we will deliver to the Trustee and to each Holder and to prospective purchasers of notes identified to us by an Initial Purchaser, at the time we are or would have been (if we were subject to such reporting obligations) required to file such with the Securities and Exchange Commission (the SEC or the Commission), such annual reports and such information, documents and other reports as are specified in Sections 13 and 15(d) of the Exchange Act, if we were subject to the requirements of Section 13 or 15(d) of the Exchange Act, including, with respect to annual information only, a report thereon by our certified independent public accountants as such would be required in such reports to the Commission, and, in each case, together with a management s discussion and analysis of financial condition and results of operations which would be so required and, unless the Commission will not accept such reports, file with the Commission the annual, quarterly and other reports which it is or would have been required to file with the Commission.

Events of Default and Remedies

The Indenture defines an Event of Default as

- our failure to pay any installment of interest (or Liquidated Damages, if any) on the notes as and when the same becomes due and payable and the continuance of any such failure for 30 days, whether or not such payment is prohibited by the subordination provisions of the Indenture,
- (2) our failure to pay all or any part of the principal or premium, if any, on the notes when and as the same becomes due and payable at maturity, redemption, by acceleration or otherwise, whether or not such payment is prohibited by the subordination provisions of the Indenture, including, without limitation, payment of the Change of Control Purchase Price or the Asset Sale Offer Price, on notes validly tendered and not properly withdrawn pursuant to a Change of Control Offer or Asset Sale Offer, as applicable,
- (3) our failure or the failure by any of our Subsidiaries to observe or perform any other covenant or agreement contained in the notes or the Indenture and, except for the covenants described above under the headings Repurchase of Notes at the Option of the Holder Upon a Change of Control, Limitation on Sale of Assets and Subsidiary Stock and Limitation on Merger, Sale or Consolidation, the continuance of such failure for a period of 45 days after written notice is given to us by the Trustee or to us and the Trustee by the Holders of at least 25% in aggregate principal amount of the notes outstanding,
- (4) certain events of bankruptcy, insolvency or reorganization in respect of us or any of our Significant Subsidiaries (or group of Subsidiaries that on a combined basis would constitute a Significant Subsidiary),
- (5) a default in our Indebtedness or the Indebtedness of any of our Subsidiaries with an aggregate amount outstanding in excess of \$15 million (a) resulting from the failure to pay principal at maturity or (b) as a result of which the maturity of such Indebtedness has been accelerated prior to its stated maturity,
- (6) final unsatisfied judgments not covered by insurance aggregating in excess of \$10 million, at any one time rendered against us or any of our Subsidiaries and not stayed, bonded or discharged within 60 days, and

(7)

any Guarantee of a Guarantor that is a Significant Subsidiary (or group of Guarantors that on a combined basis would constitute a Significant Subsidiary) ceases to be in full force and effect or becomes unenforceable or invalid or is declared null and void (other than in accordance with the terms of the Guarantee) or any Guarantor that is a Significant Subsidiary (or group of Guarantors that on a combined basis would constitute a Significant Subsidiary) denies or disaffirms its Obligations under its Guarantee.

If a Default occurs and is continuing, the Trustee must, within 90 days after the occurrence of such Default, give to the Holders notice of such Default; *provided* that except in the case of a Default in payment of principal of or interest on any note, the Trustee may withhold the notice if and so long as the Trustee in good faith determines that withholding the notice is in the interest of the Holders.

If an Event of Default occurs and is continuing (other than an Event of Default specified in clause (4) above relating to us), then in every such case, unless the principal of all of the notes shall have already become due and payable, either the Trustee or the Holders of at least 25% in aggregate principal amount of the notes then outstanding, by notice in writing to us (and to the Trustee if given by Holders) (an **Acceleration Notice**), may declare all principal, determined as set forth below, and accrued interest (and Liquidated Damages, if any) thereon to be due and payable immediately; *provided* that if any Designated Senior Debt is outstanding upon a declaration of such acceleration, such principal and interest shall be due and payable upon the earlier of (x) the fifth Business Day after sending to us and to the representative under the Credit Agreement such written notice and (y) the date of acceleration of Designated Senior Debt. If an Event of Default specified in clause (4) above relating to us occurs, all principal and accrued interest (and Liquidated Damages, if any) thereon will be immediately due and payable on all outstanding notes without any declaration or other act on the part of the Trustee or the Holders. The Holders of a majority in aggregate principal amount of notes generally are authorized to rescind such acceleration if all existing Events of Default, other than the non-payment of the principal of, premium, if any, and interest on the notes which have become due solely by such acceleration and except a Default with respect to any provision requiring a supermajority approval to amend, which Default may only be waived by such a supermajority, have been cured or waived.

Prior to the declaration of acceleration of the maturity of the notes, the Holders of a majority in aggregate principal amount of the notes at the time outstanding may waive on behalf of all the Holders any Default, except a Default with respect to any provision requiring a supermajority approval to amend, which Default may only be waived by such a supermajority, and except a Default in the payment of principal of or interest on any note not yet cured or a Default with respect to any covenant or provision which cannot be modified or amended without the consent of the Holder of each outstanding note affected. Subject to the provisions of the Indenture relating to the duties of the Trustee, the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request, order or direction of any of the Holders, unless such Holders have offered to the Trustee reasonable security or indemnity.

Subject to all provisions of the Indenture and applicable law, the Holders of a majority in aggregate principal amount of the notes at the time outstanding will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee.

Legal Defeasance and Covenant Defeasance

We may, at our option, elect to have our obligations and the obligations of the Guarantors discharged with respect to the outstanding notes (Legal Defeasance). Such Legal Defeasance means that we shall be deemed to have paid and discharged the entire indebtedness represented by the notes, and the Indenture shall cease to be of further effect as to all outstanding notes and Guarantees, except as to

- (1) rights of Holders to receive payments in respect of the principal of, premium, if any, and interest (and Liquidated Damages, if any) on such notes when such payments are due from the trust funds,
- (2) our obligations with respect to such notes concerning issuing temporary notes, registration of notes, mutilated, destroyed, lost or stolen notes, and the maintenance of an office or agency for payment and money for security payments held in trust,

(3) the rights, powers, trust, duties, and immunities of the Trustee, and our obligations in connection therewith, and

(4) the Legal Defeasance provisions of the Indenture.

In addition, we may, at our option and at any time, elect to have our obligations and the obligations of the Guarantors released with respect to most of the covenants under the Indenture, except as described otherwise in the Indenture (**Covenant Defeasance**), and thereafter any omission to comply with such obligations shall not constitute a Default or Event of Default with respect to the notes. In the event Covenant Defeasance occurs, certain events (not including non-payment, non-payment of guarantees, and, solely for a period of 91 days following the deposit referred to in clause (1) of the next paragraph, bankruptcy, receivership, rehabilitation and insolvency events) described above under the heading Events of Default with respect to the notes. We may exercise our Legal Defeasance option regardless of whether we previously exercised Covenant Defeasance.

In order to exercise either Legal Defeasance or Covenant Defeasance

- (1) we must irrevocably deposit with the Trustee, in trust, for the benefit of the Holders, U.S. legal tender, U.S. Government Obligations or a combination thereof, in such amounts as will be sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay the principal of, premium, if any, and interest on such notes on the stated date for payment thereof or on the redemption date of such principal or installment of principal of, premium, if any, or interest on such notes, and the Holders must have a valid, perfected, exclusive security interest in such trust,
- (2) in the case of Legal Defeasance, we shall have delivered to the Trustee an opinion of counsel in the United States reasonably acceptable to the Trustee confirming that:
 - (a) we have received from, or there has been published by the Internal Revenue Service, a ruling, or
 - (b) since the date of the Indenture, there has been a change in the applicable federal income tax law,

in either case to the effect that, and based thereon such opinion of counsel shall confirm that, the Holders of such notes will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred,

- (3) in the case of Covenant Defeasance, we shall have delivered to the Trustee an opinion of counsel in the United States reasonably acceptable to such Trustee confirming that the Holders of such notes will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred,
- (4) no Default or Event of Default shall have occurred and be continuing on the date of such deposit,
- (5) such Legal Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under the Indenture or any other material agreement or instrument to which we or any of our Subsidiaries are a party or by which we or any of our Subsidiaries are bound,
- (6) we shall have delivered to the Trustee an Officers Certificate stating that the deposit was not made by us with the intent of preferring the Holders of such notes over any other of our creditors or with the intent of defeating, hindering, delaying or defrauding any other of our creditors or others, and

(7) we shall have delivered to the Trustee an Officers Certificate and an opinion of counsel, each stating that the conditions precedent provided for in, in the case of the Officers Certificate, (1) through (6) and, in the case of the opinion of counsel, clauses (1) (with respect to the validity and perfection of the security interest), (2), (3) and (5) of this paragraph have been complied with.

If the funds deposited with the Trustee to effect Covenant Defeasance are insufficient to pay the principal of, premium, if any, and interest on the notes when due, then our obligations and the obligations of Guarantors under the Indenture will be revived and no such defeasance will be deemed to have occurred.

Satisfaction and Discharge

The Indenture will be discharged and will cease to be of further effect (except as to surviving rights of registration of transfer or exchange of notes) as to all outstanding notes when

- (1) either (a) all such notes theretofore authenticated and delivered (except lost, stolen or destroyed notes which have been replaced or paid and notes for whose payment money has theretofore been deposited in trust or segregated and held in trust by us and thereafter repaid to us or discharged from such trust) have been delivered to the Trustee for cancellation, or (b) all notes not theretofore delivered to the Trustee for cancellation otherwise have become due and payable or, within one year will become due and payable or subject to redemption as set forth above under the heading Optional Redemption, and we have irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust for such purpose an amount of money sufficient to pay and discharge the entire Indebtedness (including all principal, premium, if any, and accrued interest and Liquidated Damages, if any) on the notes not theretofore delivered to the Trustee for cancellation,
- (2) we have paid all sums payable by us under the Indenture,
- (3) we have delivered irrevocable instructions to the Trustee to apply the deposited money toward the payment of the notes at maturity or on the Redemption Date, as the case may be, and
- (4) the Holders have a valid, perfected, exclusive security interest in such trust.

In addition, we must deliver an Officers Certificate and an opinion of counsel stating that all conditions precedent to satisfaction and discharge have been complied with.

Amendments and Supplements

The Indenture contains provisions permitting us and the Trustee to enter into a supplemental indenture for certain limited purposes without the consent of the Holders. With the consent of the Holders of not less than a majority in aggregate principal amount of the notes at the time outstanding, we and the Trustee are permitted to amend or supplement the Indenture or any supplemental indenture or modify the rights of the Holders, *provided* that no such modification may, without the consent of each Holder affected thereby,

- (1) change the Stated Maturity on any Note, or reduce the principal amount thereof or the rate (or extend the time for payment) of interest thereon or any premium payable upon the redemption thereof at our option, or change the coin or currency in which, any note or any premium or the interest (or Liquidated Damages) thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption at our option, on or after the Redemption Date), or
- (2) amend or modify our obligation to make or consummate an Asset Sale Offer after the obligation to make such an Asset Sale Offer arises, or

- (3) alter the provisions (including the defined terms used therein) regarding our right to redeem the notes as a right, or at our option, in a manner adverse to the Holders (including, without limitation, alter or change any redemption date with respect to any note or the premium applicable thereto), or
- (4) reduce the percentage in principal amount of the outstanding notes, the consent of whose Holders is required for any such amendment, supplemental indenture or waiver provided for in the Indenture, or
- (5) amend or modify any provision of the Indenture relating to subordination (including the related definitions, including, without limitation, the definition of Senior Debt or Guarantor Senior Debt) in any manner that adversely affects Holders of the notes, or
- (6) modify any of the waiver provisions, except to increase any required percentage or to provide that certain other provisions of the Indenture cannot be modified or waived without the consent of the Holder of each outstanding note affected thereby.

Governing Law

The Indenture and the notes are governed by, and construed in accordance with, the laws of the State of New York including, without limitation, Sections 5-1401 and 5-1402 of the New York General Obligations Law and New York Civil Practice Laws and Rules 327(b).

No Personal Liability of Stockholders, Employees, Officers, Directors

No direct or indirect stockholder, employee, officer or director, as such, past, present or future, of the Company, the Guarantors or any successor entity shall have any personal liability in respect of our obligations or the obligations of the Guarantors under the Indenture or the notes solely by reason of his or its status as such stockholder, employee, officer or director, except that this provision shall in no way limit the obligation of any Guarantor pursuant to any Guarantee of the notes.

Certain Definitions

Acquired Indebtedness means Indebtedness (including Disqualified Capital Stock) of any Person existing at the time such Person becomes our Subsidiary, including by designation, or is merged or consolidated into or with us or one of our Subsidiaries.

Acquisition means the purchase or other acquisition of any Person or all or substantially all the assets of any Person by any other Person, whether by purchase, merger, consolidation or other transfer, and whether or not for consideration.

Affiliate means any Person directly or indirectly controlling or controlled by or under direct or indirect common control with us. For purposes of this definition, the term control means the power to direct the management and policies of a Person, directly or through one or more intermediaries, whether through the ownership of voting securities, by contract or otherwise; *provided* that with respect to ownership interests in us and our Subsidiaries, a Beneficial Owner of 10% or more of the total voting power normally entitled to vote in the election of directors, managers or trustees, as applicable, shall for such purposes be deemed to constitute control.

Applicable Premium means, with respect to any note on any Redemption Date, the greater of:

- (1) 1.0% of the principal amount of the Note; or
- (2) the excess of:
 - (a) the present value at such Redemption Date of (1) the redemption price of the note at August 15, 2008 (such redemption price being stated in the table appearing under the heading Optional Redemption) plus (2) all required interest payments due on the note through August 15, 2008, computed using a discount rate equal to the Treasury Rate as of such Redemption Date plus 75

basis points; over

(b) the principal amount of the Note.

Average Life means, as of the date of determination, with respect to any security or instrument, the quotient obtained by dividing (1) the sum of the products (a) of the number of years from the date of determination to the date or dates of each successive scheduled principal (or redemption) payment of such security or instrument and (b) the amount of each such respective principal (or redemption) payment by (2) the sum of all such principal (or redemption) payments.

Beneficial Owner or *beneficial owner* for purposes of the definition of Change of Control and Affiliate has the meaning attributed to it in Rules 13d-3 and 13d-5 under the Exchange Act (as in effect on the

Issue Date), whether or not applicable, except that a person shall be deemed to have beneficial ownership of all shares that any such Person has the right to acquire, whether such right is exercisable immediately or only after the passage of time.

Board of Directors means, with respect to any Person, the board of directors of such Person or any committee of the Board of Directors of such Person authorized, with respect to any particular matter, to exercise the power of the board of directors of such Person.

Business Day means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York, New York are authorized or obligated by law or executive order to close.

Capital Contribution means any contribution to our equity for which no consideration other than Qualified Capital Stock is given.

Capital Stock means, with respect to any corporation, any and all shares, interests, rights to purchase (other than convertible or exchangeable Indebtedness that is not itself otherwise capital stock), warrants, options, participations or other equivalents of or interests (however designated) in stock issued by that corporation.

Capitalized Lease Obligations means, as to any Person, the obligations of such Person under a lease that are required to be classified and accounted for as capital lease obligations under GAAP and, for purposes of this definition, the amount of such obligations at any date shall be the capitalized amount of such obligations at such date, determined in accordance with GAAP.

Cash Equivalents means:

- (1) securities issued or directly and fully guaranteed or insured by the United States of America or any agency or instrumentality thereof (*provided* that the full faith and credit of the United States of America is pledged in support thereof) maturing within one year after the date of acquisition;
- (2) time deposits and certificates of deposit and commercial paper issued by the parent corporation of any domestic commercial bank of recognized standing having capital and surplus in excess of \$500 million and a Thomson BankWatch rating of B or better maturing within one year after the date of acquisition;
- (3) commercial paper issued by others having the highest rating obtainable from S&P or Moody s;
- (4) repurchase obligations with a term of not more than ten days for underlying securities of the types described in clause (1) above entered into with any bank meeting the qualifications specified in clause (2) above;
- (5) marketable obligations issued by any state of the United States of America or any political subdivision of any such state or any public instrumentality thereof maturing, or payable at the demand of the holder thereof, within one year from the date of acquisition thereof and, at the time of acquisition, having one of the three highest ratings obtainable from either S&P or Moody s;

- (6) investments in money market funds substantially all of whose assets comprise securities of the types described in clauses (1) through (5) above; and
- (7) for purposes of clause (2) of the first paragraph of the Limitation on Sale of Assets and Subsidiary Stock covenant only, marketable securities or purchaser promissory notes, in each case, of the purchaser or acquirer of the assets or property subject to the applicable Asset Sale in an amount not exceeding in the aggregate \$15 million outstanding at any one time granted or issued to us pursuant such clause.

Change of Control means:

- (1) any merger or consolidation of us with or into any Person, in one transaction or a series of related transactions, if, immediately after giving effect to such transaction(s), either (x) any person or group (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act) (other than the Excluded Persons) is or becomes the beneficial owner, directly or indirectly, of more than 40% of the Voting Equity Interests of the transferee(s) or surviving entity or entities, and the Excluded Persons shall cease to own beneficially at least a greater percentage of the Voting Equity Interests of the transferee(s) or surviving entity or entities than such other person or group or (y) the Excluded Persons shall cease to own beneficially a greater percentage of the Voting Equity Interests of such transferee(s) or surviving entity or entities than any other person or group,
- (2) any person or group (other than the Excluded Persons) is or becomes the beneficial owner, directly or indirectly, of more than 40% of our Voting Equity Interests, and the Excluded Persons shall cease to own beneficially at least a greater percentage of our Voting Equity Interests than such other person or group,
- (3) the sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of our consolidated assets to any person or group (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act),
- (4) the Continuing Directors cease for any reason to constitute a majority of our Board of Directors then in office, or
- (5) we adopt a plan of liquidation or dissolution.

Consolidated Coverage Ratio of any Person on any date of determination (the **Transaction Date**) means the ratio, on a pro forma basis, of (a) the aggregate amount of Consolidated EBITDA of such Person (exclusive of amounts attributable to operations and businesses permanently discontinued or disposed of) for the Reference Period to (b) the aggregate Consolidated Fixed Charges of such Person (exclusive of amounts attributable to operations and businesses permanently discontinued or disposed of, but only to the extent that the obligations giving rise to such Consolidated Fixed Charges would no longer be obligations contributing to such Person s Consolidated Fixed Charges subsequent to the Transaction Date) during the Reference Period; *provided* that for purposes of such calculation

- (1) Acquisitions or dispositions which occurred during the Reference Period or subsequent to the Reference Period and on or prior to the Transaction Date shall be assumed to have occurred on the first day of the Reference Period,
- (2) transactions giving rise to the need to calculate the Consolidated Coverage Ratio shall be assumed to have occurred on the first day of the Reference Period,
- (3) the incurrence of any Indebtedness (including issuance of any Disqualified Capital Stock) during the Reference Period or subsequent to the Reference Period and on or prior to the Transaction Date (and the application of the proceeds therefrom to the extent used to refinance or retire other Indebtedness) shall be assumed to have occurred on the first day of the Reference Period, and
- (4) the Consolidated Fixed Charges of such Person attributable to interest on any Indebtedness or dividends on any Disqualified Capital Stock bearing a floating interest (or dividend) rate shall be computed on a pro forma basis as if the average rate in effect from the beginning of the Reference Period to the Transaction Date had been the applicable rate for the entire period, unless such Person or any of its Subsidiaries is a party to an Interest Swap or Hedging Obligation (which shall remain in effect for the 12-month period immediately following the Transaction Date) that has the effect of fixing the interest rate on the date of computation, in which case

such rate (whether higher or lower) shall be used.

Consolidated EBITDA means, with respect to any Person, for any period, the Consolidated Net Income of such Person for such period adjusted to add thereto (to the extent deducted from net revenues in determining Consolidated Net Income), without duplication, the sum of

- (1) Consolidated income tax expense,
- (2) Consolidated depreciation and amortization expense,
- (3) Consolidated Fixed Charges, and
- (4) All other non-cash charges (excluding any such non-cash charge to the extent that it represents an accrual of or reserve for cash expenditures in any future period),

less the amount of all cash payments made by such Person or any of its Subsidiaries during such period to the extent such payments relate to non-cash charges that were added back in determining Consolidated EBITDA for such period or any prior period; *provided* that consolidated income tax expense, depreciation and amortization and Consolidated Fixed Charges of a Subsidiary (x) that is a less than Wholly Owned Subsidiary shall only be added to the extent and in the same proportions that the net income of such Subsidiary was included in the calculation of Consolidated Net Income of such Person and (y) shall only be added to the extent and in the same proportions that the Consolidated EBITDA of such Subsidiary is permitted to be paid or distributed as a dividend, advance, loan or other distribution to such Person.

Consolidated Fixed Charges of any Person means, for any period, the aggregate amount (without duplication and determined in each case in accordance with GAAP) of

- (1) interest expensed or capitalized, paid, accrued, or scheduled to be paid or accrued (including, in accordance with the following sentence, interest attributable to Capitalized Lease Obligations) of such Person and its Consolidated Subsidiaries during such period, including (a) original issue discount and non-cash interest payments or accruals on any Indebtedness, (b) the interest portion of all deferred payment obligations, and (c) all commissions, discounts and other fees and charges owed with respect to banker s acceptances and letters of credit financings and currency and Interest Swap and Hedging Obligations, in each case to the extent attributable to such period, and
- (2) the amount of dividends accrued or payable (or guaranteed) by such Person or any of its Consolidated Subsidiaries in respect of Preferred Stock (other than by Subsidiaries of such Person to such Person or such Person s Wholly Owned Subsidiaries).

For purposes of this definition, (x) interest on a Capitalized Lease Obligation shall be deemed to accrue at an interest rate reasonably determined in good faith by such Person to be the rate of interest implicit in such Capitalized Lease Obligation in accordance with GAAP and (y) interest expense attributable to any Indebtedness represented by the guarantee by such Person or a Subsidiary of such Person of an obligation of another Person shall be deemed to be the interest expense attributable to the Indebtedness guaranteed.

Consolidated Net Income means, with respect to any Person for any period, the net income (or loss) of such Person and its Consolidated Subsidiaries (determined on a consolidated basis in accordance with GAAP) for such period, adjusted to exclude (only to the extent included in computing such net income (or loss) and without duplication)

- (1) all gains or losses which are extraordinary (as determined in accordance with GAAP) (including any gain from the sale or other disposition of assets outside the ordinary course of business or from the issuance or sale of any capital stock),
- (2) the net income, if positive, of any Person, other than a Consolidated Subsidiary, in which such Person or any of its Consolidated Subsidiaries has an interest, except to the extent of the amount of any dividends or distributions actually paid in cash to such Person or a Consolidated Subsidiary of such Person during such period, but in any case not in excess of such Person s *pro rata* share of such Person s net income for such period,

- (3) the net income, if positive, of any of such Person s Consolidated Subsidiaries to the extent that the declaration or payment of dividends or similar distributions is not at the time permitted by operation of the terms of its charter or bylaws or any other agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to such Consolidated Subsidiary, and
- (4) the net income of, and all dividends and distributions from, any Unrestricted Subsidiary.

Consolidated Net Worth of any Person at any date means the aggregate consolidated stockholders equity of such Person (plus amounts of equity attributable to preferred stock) as would be shown on the consolidated balance sheet of such Person prepared in accordance with GAAP, adjusted to exclude (to the extent included in calculating such equity), (a) the amount of any such stockholders equity attributable to Disqualified Capital Stock or treasury stock of such Person and its Consolidated Subsidiaries, (b) all upward revaluations and other write-ups in the book value of any asset of such Person or a Consolidated Subsidiary of such Person subsequent to the Issue Date, and (c) all investments in subsidiaries that are not Consolidated Subsidiaries and in Persons that are not Subsidiaries.

Consolidated Subsidiary means, for any Person, each Subsidiary of such Person (whether now existing or hereafter created or acquired) the financial statements of which are consolidated for financial statement reporting purposes with the financial statements of such Person in accordance with GAAP.

Consolidation means the consolidation of our accounts with the accounts of our Subsidiaries, all in accordance with GAAP; *provided* that consolidation will not include consolidation of the accounts of any Unrestricted Subsidiary with our accounts. The term consolidated has a correlative meaning to the foregoing.

Continuing Director means during any period of 12 consecutive months after the Issue Date, individuals who at the beginning of any such 12-month period constituted our Board of Directors (together with any new directors whose election by such Board of Directors or whose nomination for election by our shareholders was approved by a vote of a majority of the directors then still in office who were either directors at the beginning of such period or whose election or nomination for election was previously so approved, including new directors designated in or provided for in an agreement regarding the merger, consolidation or sale, transfer or other conveyance, of all or substantially all of our assets, if such agreement was approved by a vote of such majority of directors).

Credit Agreement means that certain Credit Agreement, dated as of September 30, 1999, by and among us, certain of our Subsidiaries, certain financial institutions and Bank One, NA, as agent and representative, as amended from time to time, including any related notes, guarantees, collateral documents, instruments and agreements executed in connection therewith, as such credit agreement and/or related documents may be amended, restated, supplemented, renewed, refunded, replaced (whether upon or after termination or otherwise), refinanced (including by means of sales of debt securities to institutional investors), modified, substituted or otherwise restructured (including, but not limited to, the inclusion of additional borrowers thereunder), in whole or in part from time to time whether or not with the same agent, trustee, representative lenders or holders and irrespective of any changes in the terms and conditions thereof. Without limiting the generality of the foregoing, the term Credit Agreement shall include agreements in respect of Interest Swap and Hedging Obligations with lenders party to the Credit Agreement or their affiliates.

Credit Facilities means one or more debt facilities (including, without limitation, the Credit Agreement) or commercial paper facilities, in each case with banks, investment banks, insurance companies, mutual funds or other lenders providing for revolving credit loans, term loans, bankers acceptances, receivables financing (including through the sale of receivables to such lenders or to special purpose entities formed to borrow from such lenders against such receivables) or letters of credit, in each case, as amended, restated, supplemented, renewed, replaced (whether upon or after termination or otherwise), refinanced (including by means of sales of debt securities to institutional investors), modified, substituted or otherwise restructured (including, but not limited to, the inclusion of additional borrowers thereunder), in whole or in part and

from time to time. Without

limiting the generality of the foregoing, the term Credit Facilities shall include agreements in respect of Interest Swap and Hedging Obligations with lenders party to the Credit Facilities or their affiliates.

Default means any event that is or with the passage of time or the giving of notice or both would be an Event of Default.

Designated Senior Debt means Senior Debt from time to time outstanding under the Credit Agreement.

Disqualified Capital Stock means, with respect to any Person, any Equity Interest of such Person that, by its terms or by the terms of any security into which it is convertible, exercisable or exchangeable, is, or upon the happening of an event or the passage of time or both would be, required to be redeemed or repurchased (including at the option of the holder thereof) by such Person or any of its Subsidiaries, in whole or in part, on or prior to the Stated Maturity of the notes; *provided, however*, that any Equity Interests that would not constitute Disqualified Capital Stock but for provisions thereof giving holders thereof (or the holders of any security into or for which such Equity Interests are convertible, exchangeable or exercisable) the right to require us to redeem such Equity Interests upon the occurrence of a change in control occurring prior to the Stated Maturity of the notes shall not constitute Disqualified Capital Stock if the change in control provisions applicable to such Equity Interests are no more favorable to such holders than the provisions described under Repurchase of Notes at the Option of the Holder Upon a Change of Control and such Equity Interests specifically provide that we will not redeem any such Equity Interests pursuant to such provisions prior to our purchase of the notes as required pursuant to the provisions described under Repurchase of Notes at the Option of the Holder Upon a Change of Control.

Domestic Subsidiary means any of our Subsidiaries, other than Foreign Subsidiaries.

Equity Interests means Capital Stock or partnership, participation or membership interests and all warrants, options or other rights to acquire Capital Stock or partnership, participation or membership interests (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock or partnership, participation or membership interests).

Event of Loss means, with respect to any property or asset, any (1) loss, destruction or damage of such property or asset or (2) any condemnation, seizure or taking, by exercise of the power of eminent domain or otherwise, of such property or asset, or confiscation or requisition of the use of such property or asset.

Exchange Act means the Securities Exchange Act of 1934, as amended.

Excluded Persons means (1) David Schwartz, Alice Schwartz, Norman D. Schwartz, Steven Schwartz, (2) any spouse, immediate family member, relative or lineal descendant of any person described in clause (1), (3) any trust in which any one or more of the persons described in clause (1) or (2) holds all of the beneficial interests, and (4) any Affiliate of the persons described in clause (1) or (2).

Exempted Affiliate Transaction means (1) customary employee compensation and benefit arrangements and indemnification agreements, in each case, approved by a majority of independent (as to such transactions) members of our Board of Directors, (2) Restricted Payments, other

than Investments, permitted under the terms of the covenant discussed above under the heading Limitation on Restricted Payments, (3) transactions solely between us and any Subsidiaries, or solely among Subsidiaries, (4) payment of reasonable directors fees to persons who are not otherwise our Affiliate, (5) sales of Equity Interests (other than Disqualified Capital Stock) to our Affiliates, (6) performance of all agreements in existence on the Issue Date and any modification thereto or any transaction contemplated thereby in any replacement agreement therefor so long as such modification or replacement is not more disadvantageous to us, any of our Subsidiaries or the Holders in any material respect than the original agreement as in effect on the Issue Date and (7) transactions with suppliers or vendors pursuant to purchase orders executed in the ordinary course of business consistent with past practice.

Existing Indebtedness means our Indebtedness and the Indebtedness of our Subsidiaries (other than Indebtedness under the Credit Facilities) in existence on the Issue Date, reduced to the extent such amounts are repaid, refinanced or retired.

fair market value means, with respect to any asset or property, the price which could be negotiated in an arm s-length, free market transaction, for cash, between a willing seller and a willing and able buyer, neither of whom is under undue pressure or compulsion to complete the transaction. Fair market value shall be determined by our Board of Directors acting reasonably and in good faith and shall be evidenced by a board resolution of our Board of Directors delivered to the Trustee; *provided, however*, that the fair market value of the consideration received in an Asset Sale for which the total consideration received is less than \$1.0 million may be determined by senior management of the Company acting reasonably and in good faith and evidenced by an officers certificate delivered to the Trustee.

Foreign Subsidiary means any of our Subsidiaries which (1) is not organized under the laws of the United States, any state thereof or the District of Columbia and (2) conducts substantially all of its business operations outside the United States of America.

Foreign Subsidiary Credit Agreement means any credit agreement or similar instrument, including, without limitation, working capital or equipment purchase lines of credit, entered into by any Foreign Subsidiary governing the terms of a bona fide borrowing by such Foreign Subsidiary from (a) a third-party financial institution that is primarily engaged in the business of commercial banking or (b) a vendor or other provider of financial accommodations in connection with the purchase of equipment, in either case for valid business purposes, including any related notes, guarantees, collateral documents, instruments and agreements executed in connection therewith, as such may be amended, restated, supplemented, renewed, replaced or otherwise modified from time to time whether or not with the same agent, trustee, representative lenders or holders, and, subject to the proviso to the next succeeding sentence, irrespective of any changes in the terms and conditions thereof. Without limiting the generality of the foregoing, the term Foreign Subsidiary Credit Agreement shall include agreements in respect of Interest Swap and Hedging Obligations with lenders party to a Foreign Subsidiary Credit Agreement and shall also include any amendment, amendment and restatement, renewal, extension, restructuring, supplement or modification to any Foreign Subsidiary Credit Agreement and all refundings, refinancings and replacements of any Foreign Subsidiary Credit Agreement, including any agreement

- (1) extending the maturity of any Indebtedness incurred thereunder or contemplated thereby,
- (2) adding or deleting borrowers or guarantors thereunder, so long as borrowers and issuers include one or more of the Foreign Subsidiaries and their respective successors and assigns,
- (3) increasing the amount of Indebtedness incurred thereunder or available to be borrowed thereunder; *provided* that on the date such Indebtedness is incurred its incurrence would not be prohibited by the Indenture, or
- (4) otherwise altering the terms and conditions thereof in a manner not prohibited by the terms of the Indenture.

GAAP means United States generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as approved by a significant segment of the accounting profession in the United States as in effect from time to time.

Guarantor means each of our Subsidiaries that in the future executes a guarantee pursuant to and in accordance with the requirements of the Indenture in which such Subsidiary unconditionally guarantees on a senior subordinated basis our obligations under the notes and the Indenture

(each such guarantee, a **Guarantee**); *provided* that any Person constituting a Guarantor as described above shall cease to constitute a Guarantor when its respective Guarantee is released in accordance with the terms of the Indenture.

Guarantor Senior Debt means, with respect to any Guarantor, Indebtedness (including any monetary obligation in respect of the Credit Facilities, and interest, whether or not allowable, accruing on Indebtedness incurred pursuant to the Credit Facilities after the filing of a petition initiating any proceeding under any bankruptcy, insolvency or similar law) of such Guarantor arising under the Credit Facilities or its guarantee thereof or that is permitted to be incurred under the terms of the Indenture unless the terms of the instrument creating or evidencing such Indebtedness expressly provide that it is on a parity with or subordinated in right of payment to its Guarantee of the notes; *provided* that in no event shall Guarantor Senior Debt include (1) Indebtedness incurred in violation of the terms of the Indenture, (3) trade payables or other Indebtedness to trade creditors, (4) Disqualified Capital Stock, (5) Capitalized Lease Obligations, (6) any liability for taxes owed or owing by such Guarantor, and (7) such Guarantor s guarantee of the 2007 Notes, if any.

Indebtedness of any Person means, without duplication,

- (1) all liabilities and obligations, contingent or otherwise, of such Person, to the extent such liabilities and obligations would appear as a liability upon the consolidated balance sheet of such Person in accordance with GAAP
 - (a) in respect of borrowed money (whether or not the recourse of the lender is to the whole of the assets of such Person or only to a portion thereof),
 - (b) evidenced by bonds, notes, debentures or similar instruments,
 - (c) representing the balance deferred and unpaid of the purchase price of any property or services, except (other than accounts payable or other obligations to trade creditors which have remained unpaid for greater than 90 days past their original due date) those incurred in the ordinary course of its business that would constitute ordinarily a trade payable to trade creditors,
 - (d) evidenced by bankers acceptances or similar instruments issued or accepted by banks, or
 - (e) relating to any Capitalized Lease Obligation,
- (2) all liabilities and obligations, contingent or otherwise, of such Person evidenced by a letter of credit or a reimbursement obligation of such Person with respect to any letter of credit,
- (3) all net obligations of such Person under interest swap obligations, interest cap agreements, commodity agreements, currency agreements and other similar hedging arrangements, obligations or agreements,
- (4) all liabilities and obligations of others of the kind described in the preceding clause (1), (2) or (3) that such Person has guaranteed or provided credit support or that is otherwise its legal liability or which are secured by any assets or property of such Person,
- (5) any and all deferrals, renewals, extensions, refinancing and refundings (whether direct or indirect) of, or amendments, modifications or supplements to, any liability of the kind described in any of the preceding clauses (1), (2), (3), (4), or this clause (5), whether or not between or among the same parties,
- (6) all Disqualified Capital Stock of such Person (measured at the greater of its voluntary or involuntary maximum fixed repurchase price plus accrued and unpaid dividends), and

(7) all obligations to purchase, redeem or acquire any third-party Equity Interests.

For purposes hereof, the maximum fixed repurchase price of any Disqualified Capital Stock which does not have a fixed repurchase price shall be calculated in accordance with the terms of such Disqualified Capital Stock as if such Disqualified Capital Stock were purchased on any date on which Indebtedness shall be required to be determined pursuant to the Indenture, and if such price is based upon, or measured by, the fair market value of such Disqualified Capital Stock, such fair market value to be determined in good faith by the board of directors of the issuer (or managing general partner of the issuer) of such Disqualified Capital Stock.

The amount of any Indebtedness outstanding as of any date shall be (1) the accreted value thereof, in the case of any Indebtedness issued with original issue discount, but the accretion of original issue discount in accordance with the original terms of Indebtedness issued with an original issue discount will not be deemed to be an incurrence and (2) the principal amount thereof, together with any interest thereon that is more than 30 days past due, in the case of any other Indebtedness.

Interest Swap and Hedging Obligation means any obligation of any Person pursuant to any interest rate swap agreement, interest rate cap agreement, interest rate collar agreement, interest rate exchange agreement, currency exchange agreement or any other agreement or arrangement designed to protect against fluctuations in interest rates or currency values (and not for speculative purposes), including, without limitation, any arrangement whereby, directly or indirectly, such Person is entitled to receive from time to time periodic payments calculated by applying either a fixed or floating rate of interest on a stated notional amount in exchange for periodic payments made by such Person calculated by applying a fixed or floating rate of interest on the same notional amount.

Investment by any Person in any other Person means (without duplication):

- the acquisition (whether by purchase, merger, consolidation or otherwise) by such Person (whether for cash, property, services, securities or otherwise) of Equity Interests, bonds, notes, debentures, partnership or other ownership interests or other securities of such other Person or any agreement to make any such acquisition;
- (2) the making by such Person of any deposit with, or advance, loan or other extension of credit to, such other Person (including the purchase of property from another Person subject to an understanding or agreement, contingent or otherwise, to resell such property to such other Person) or any written commitment to make any such advance, loan or extension (but excluding accounts receivable, endorsements for collection or deposits arising in the ordinary course of business) within one year;
- (3) other than guarantees of our Indebtedness or any Subsidiary to the extent permitted by the covenant described above under the heading Limitation on Incurrence of Additional Indebtedness and Disqualified Capital Stock, any guarantee of, or other credit support or contingent obligation with respect to, Indebtedness or other liability of such other Person;
- (4) the making of any capital contribution (which shall be deemed to include payment of consideration in excess of fair market value of any assets received) by such Person to such other Person; and
- (5) the designation by our Board of Directors of any Person to be an Unrestricted Subsidiary.

We shall be deemed to make an Investment in an amount equal to the fair market value of our or our Subsidiaries proportionate interest in such Subsidiary on such date (or, if neither we nor any of our Subsidiaries has theretofore made an Investment in such Subsidiary, in an amount equal to the Investments being made), at the time that such Subsidiary is designated an Unrestricted Subsidiary, and any property transferred to an Unrestricted Subsidiary from us or one of our Subsidiaries shall be deemed an Investment valued at its fair market value at the time of such transfer. The fair market value of each Investment shall be measured at the time made or returned, as applicable.

Issue Date means the date of first issuance of the notes under the Indenture.

Junior Security means any Qualified Capital Stock and any Indebtedness of ours or a Subsidiary, as applicable, that is contractually subordinated in right of payment to Senior Debt at least to the same extent as the notes, and has no scheduled installment of principal due, by redemption, sinking fund payment or otherwise, on or prior to the Stated Maturity of the notes; *provided* that in the case of subordination in respect of Designated Senior Debt, Junior Security shall mean any Qualified Capital Stock and any Indebtedness of ours or the Subsidiary that

(1) has a final maturity date occurring after the final maturity date of all Designated Senior Debt on the date of issuance of such Qualified Capital Stock or Indebtedness,

- (2) is unsecured,
- (3) has an Average Life longer than the security for which such Qualified Capital Stock or Indebtedness is being exchanged, and
- (4) by its terms or by law is subordinated to Designated Senior Debt on the date of issuance of such Qualified Capital Stock or Indebtedness at least to the same extent as the notes.

Lien means any mortgage, charge, pledge, lien (statutory or otherwise), privilege, security interest, hypothecation or other encumbrance upon or with respect to any property of any kind, real or personal, movable or immovable, now owned or hereafter acquired.

Liquidated Damages means all liquidated damages then owing pursuant to the Registration Rights Agreement.

Material Domestic Subsidiary means any Domestic Subsidiary that is a Significant Subsidiary or any group of Domestic Subsidiaries that on a combined basis would constitute a Significant Subsidiary.

Net Cash Proceeds means the aggregate amount of cash or Cash Equivalents received by us in the case of a sale of Qualified Capital Stock or a Capital Contribution and by us and our Subsidiaries in respect of an Asset Sale plus, in the case of an issuance of Qualified Capital Stock upon any exercise, exchange or conversion of our securities (including options, warrants, rights and convertible or exchangeable debt) that were issued for cash on or after the Issue Date, the amount of cash originally received by us upon the issuance of such securities (including options, warrants, rights and convertible or exchangeable debt) less, in each case, the sum of all payments, fees, commissions and (in the case of Asset Sales, reasonable and customary), expenses (including, without limitation, the fees and expenses of legal counsel and investment banking fees and expenses) incurred in connection with such Asset Sale, sale of Qualified Capital Stock or Capital Contribution, and, in the case of an Asset Sale only, less the amount (estimated reasonably and in good faith by us) of income, franchise, sales and other applicable taxes required to be paid by us or any of our Subsidiaries in connection with such Asset Sale in the taxable year that such sale is consummated or in the immediately succeeding taxable year, the computation of which shall take into account the reduction in tax liability resulting from any available operating losses and net operating loss carryovers, tax credits and tax credit carryforwards, and similar tax attributes.

Non-Recourse Indebtedness means Indebtedness of a Person as to which neither we nor any Subsidiary provides any guarantee, collateral or other credit support of any kind whatsoever.

Obligation means any principal, premium or interest payment, or monetary penalty, or damages, due by us or any Guarantor under the terms of the notes or the Indenture, including any Liquidated Damages due pursuant to the terms of the Registration Rights Agreement.

Officers Certificate means the officers certificate to be delivered upon the occurrence of certain events as set forth in the Indenture.

Permitted Investment means:

- (1) any Investment in us or any Subsidiary of ours or in any Person that immediately after giving effect to such Investment becomes a Subsidiary of ours;
- (2) any Investment in Cash Equivalents;
- (3) intercompany notes to the extent permitted under the covenant described above under the heading Limitation on Incurrence of Additional Indebtedness and Disqualified Capital Stock ;
- (4) Investments in that certain public German company in which the Company has an Investment on the Issue Date, in an aggregate amount since the Issue Date not to exceed \$15 million;

- (5) other Investments in any Person or Persons; *provided* that after giving pro forma effect to each such Investment, the aggregate amount of all such Investments made on and after the Issue Date pursuant to this clause (5) that are outstanding (after giving effect to any such Investments that are returned to us or any Subsidiary that made such prior Investment, without restriction, in cash on or prior to the date of any such calculation, but only up to the amount of the Investment made under this clause (5) in such Person) at any time does not in the aggregate exceed \$35 million (measured by the value attributed to the Investment at the time made);
- (6) any Investment made as a result of the receipt of non-cash consideration (other than Equity Interests) from an Asset Sale that complies with the covenant described above under Limitation on Sale of Assets and Subsidiary Stock ;
- (7) any acquisition of assets solely in exchange for the issuance of our Qualified Capital Stock;
- (8) any Investment in connection with Interest Swap and Hedging Obligations otherwise permitted under the Indenture; and
- (9) any Investment received (a) in satisfaction of judgments or (b) as payment on a claim made in connection with any bankruptcy, liquidation, receivership or other insolvency proceeding.

Permitted Liens means:

- (1) Liens existing on the Issue Date;
- (2) Liens imposed by governmental authorities for taxes, assessments or other charges not yet subject to penalty or which are being contested in good faith and by appropriate proceedings, if adequate reserves with respect thereto are maintained on our books and records in accordance with GAAP;
- (3) statutory liens of carriers, warehousemen, mechanics, materialmen, landlords, repairmen or other like Liens arising by operation of law in the ordinary course of business; *provided* that (a) the underlying obligations are not overdue for a period of more than 30 days, or (b) such Liens are being contested in good faith and by appropriate proceedings and adequate reserves with respect thereto are maintained on our books in accordance with GAAP;
- (4) Liens securing the notes, Additional Notes (to the extent issued in accordance with the terms of the Indenture) and the Exchange Notes;
- (5) Liens securing Indebtedness of a Person existing at the time such Person becomes one of our Subsidiaries or is merged with or into us or one of our Subsidiaries or Liens securing Indebtedness incurred in connection with an Acquisition; *provided* that such Liens were in existence prior to the date of such acquisition, merger or consolidation, were not incurred in anticipation thereof, and do not extend to any other assets;
- (6) Liens arising from Purchase Money Indebtedness permitted to be incurred pursuant to the Indenture; *provided* that such Liens relate solely to the property which is subject to such Purchase Money Indebtedness;
- (7) Liens arising from precautionary Uniform Commercial Code financing statement filings regarding operating leases entered into by us or any of our Subsidiaries in the ordinary course of business;

- (8) Liens securing Refinancing Indebtedness incurred to refinance any Indebtedness that was previously so secured in a manner no more adverse to the Holders than the terms of the Liens securing such refinanced Indebtedness; *provided* that the Indebtedness secured is not increased and the Lien is not extended to any additional assets or property that would not have been security for the Indebtedness refinanced;
- (9) Liens securing (a) Indebtedness under the Credit Facilities, (b) other Senior Debt or Guarantor Senior Debt, or (c) Capitalized Lease Obligations, in each case, incurred in accordance with the terms of the Indenture;

- (10) Liens securing Indebtedness of any Foreign Subsidiary incurred in accordance with the terms of the Indenture;
- (11) Liens in favor of Bio-Rad or any Guarantor;
- (12) Liens securing reimbursement obligations with respect to commercial letters of credit which solely encumber documents and other property relating to such letters of credit and products and proceeds thereof; and
- (13) Liens on the Equity Interests of Unrestricted Subsidiaries securing obligations of Unrestricted Subsidiaries to the extent permitted by the terms of the Indenture.

Person or *person* means any corporation, individual, limited liability company, joint stock company, joint venture, partnership, limited liability partnership, unincorporated association, governmental regulatory entity, country, state or political subdivision thereof, trust, municipality or other entity.

Preferred Stock means any Equity Interest of any class or classes of a Person (however designated) which is preferred as to payments of dividends, or as to distributions upon any liquidation or dissolution, over Equity Interests of any other class of such Person.

Pro Forma or *pro forma* shall have the meaning set forth in Regulation S-X of the Securities Act of 1933, as amended, unless otherwise specifically stated herein.

Purchase Money Indebtedness of any Person means any Indebtedness of such Person to any seller or other Person incurred solely to finance the acquisition (including in the case of a Capitalized Lease Obligation, the lease), construction, installation or improvement of any after acquired real or personal tangible property which, is directly related to a Related Business of ours and which is incurred concurrently with (or within 180 days following) such acquisition, construction, installation or improvement and is secured only by the assets so financed.

Qualified Capital Stock means any of our Capital Stock that is not Disqualified Capital Stock.

Qualified Exchange means:

- (1) any legal defeasance, redemption, retirement, repurchase or other acquisition of our Capital Stock or our Indebtedness issued on or after the Issue Date with the Net Cash Proceeds received by us from the substantially concurrent sale of our Qualified Capital Stock or, to the extent used to retire our Indebtedness (other than Disqualified Capital Stock) issued on or after the Issue Date, our Subordinated Indebtedness;
- (2) any issuance of our Qualified Capital Stock in exchange for any of our Capital Stock or Indebtedness issued on or after the Issue Date; or
- (3) any exchange of our Subordinated Indebtedness for our Subordinated Indebtedness issued on or after the Issue Date.

Reference Period with regard to any Person means the four full fiscal quarters (or such lesser period during which such Person has been in existence) ended immediately preceding any date upon which any determination is to be made pursuant to the terms of the notes or the Indenture.

Refinancing Indebtedness means Indebtedness or Disqualified Capital Stock

(1) issued in exchange for, or the proceeds from the issuance and sale of which are applied within 45 days of such issuance and sale to repay, redeem, defease, refund, refinance, discharge or otherwise retire for value, in whole or in part, or

- (2) constituting an amendment, modification or supplement to, or a deferral or renewal of (clauses (1) and (2) above, collectively, a **Refinancing** (and **Refinance** and **Refinanced** shall have correlative meanings)), any Indebtedness (including Disqualified Capital Stock) in a principal amount or, in the case of Disqualified Capital Stock, liquidation preference not to exceed (after deduction of reasonable and customary fees and expenses incurred in connection with the Refinancing *plus* any premium paid in connection with such Refinancing in an amount not exceeding the amount which is reasonably necessary, as determined in good faith by our Board of Directors, to accomplish such Refinancing) the lesser of
 - (i) the principal amount or, in the case of Disqualified Capital Stock, liquidation preference of the Indebtedness (including Disqualified Capital Stock) so Refinanced and
 - (ii) if such Indebtedness being Refinanced was issued with an original issue discount, the accreted value thereof (as determined in accordance with GAAP) at the time of such Refinancing;

provided that (a) (I) if the Indebtedness to be Refinanced is Indebtedness of ours, only we shall be the obligor under such Refinancing Indebtedness to be Refinanced is Indebtedness of a Guarantor, only we or a Guarantor shall be the obligors under such Refinancing Indebtedness, (b) such Refinancing Indebtedness shall (I) not have an Average Life shorter than the Indebtedness (including Disqualified Capital Stock) to be so refinanced at the time of such Refinancing and (II) in all respects, be no less contractually subordinated or junior, if applicable, to the rights of Holders than was the Indebtedness (including Disqualified Capital Stock) to be refinanced, (c) such Refinancing Indebtedness shall have a final stated maturity or redemption date, as applicable, no earlier than the final stated maturity or redemption date, as applicable, of the Indebtedness (including Disqualified Capital Stock) to be so refinanced or, if sooner, 91 days after the Stated Maturity of the notes, and (d) such Refinancing Indebtedness shall be secured (if secured) in a manner no more adverse to the Holders than the terms of the Liens (if any) securing such refinanced Indebtedness, including, without limitation, the amount of Indebtedness secured shall not be increased.

Related Business means the business conducted (or proposed to be conducted) by us and our Subsidiaries as of the Issue Date and any and all businesses that in the good faith judgment of our Board of Directors are materially related businesses.

Restricted Investment means, in one or a series of related transactions, any Investment other than Permitted Investments.

Restricted Payment means, with respect to any Person:

- (1) the declaration or payment of any dividend or other distribution in respect of Equity Interests of such Person or any parent or Subsidiary of such Person;
- any payment on account of the purchase, redemption or other acquisition or retirement for value of Equity Interests of such Person or any Subsidiary or parent of such Person;
- (3) other than (a) with the proceeds from the sale or issuance of Refinancing Indebtedness applied within 45 days of such sale or issuance or (b) in exchange for Refinancing Indebtedness, any purchase, redemption, or other acquisition or retirement for value of, any payment in respect of any amendment of the terms of or any defeasance of, any Subordinated Indebtedness (other than the notes and the 2007 Notes), directly or indirectly, by such Person or a parent or Subsidiary of such Person prior to the scheduled maturity, any scheduled repayment of principal, or scheduled sinking fund payment, as the case may be, of such Indebtedness; and

(4) any Restricted Investment by such Person;

provided, however, that the term Restricted Payment does not include

(1) any dividend, distribution or other payment on or with respect to Equity Interests of an issuer to the extent payable solely in shares of Qualified Capital Stock of such issuer, or

(2) any dividend, distribution or other payment to us, or to any Subsidiary, by us or any of our Subsidiaries.

Senior Debt means our Indebtedness (including any of our monetary obligations in respect of the Credit Facilities, and interest, whether or not allowable, accruing on Indebtedness incurred pursuant to the Credit Facilities after the filing of a petition initiating any proceeding under any bankruptcy, insolvency or similar law) arising under the Credit Facilities or that is permitted to be incurred under the terms of the Indenture unless the terms of the instrument creating or evidencing such Indebtedness expressly provide that it is on a parity with or subordinated in right of payment to the notes; *provided* that in no event shall Senior Debt include (1) Indebtedness to any of our Subsidiaries or any officer, director or employee of ours or any of our Subsidiaries or any other Affiliate, (2) Indebtedness incurred in violation of the terms of the Indenture, (3) trade payables or other Indebtedness to trade creditors, (4) Disqualified Capital Stock, (5) Capitalized Lease Obligations, (6) any liability for taxes owed or owing by us or (7) the 2007 Notes.

Significant Subsidiary shall have the meaning provided under Regulation S-X of the Securities Act, as in effect on the Issue Date, except that all references to 10% in such Regulation shall be deemed to be references to 5% for purposes of this definition.

Stated Maturity when used with respect to any Note, means the date the notes mature, as set forth in the first paragraph under Principal, Maturity and Interest.

Subordinated Indebtedness means our Indebtedness that is subordinated in right of payment by its terms or the terms of any document or instrument or instrument relating thereto to the notes.

Subsidiary with respect to any Person, means (1) a corporation a majority of whose Equity Interests with voting power, under ordinary circumstances, to elect directors is at the time, directly or indirectly, owned by such Person, by such Person and one or more Subsidiaries of such Person or by one or more Subsidiaries of such Person, (2) any other Person (other than a corporation) in which such Person, one or more Subsidiaries of such Person and one or more Subsidiaries of such Person, directly or indirectly, at the date of determination thereof has at least majority ownership interest, or (3) a partnership in which such Person or a Subsidiary of such Person is, at the time, a general partner and in which such Person, directly or indirectly, at the date of determination thereof has at least a majority ownership interest. Notwithstanding the foregoing, an Unrestricted Subsidiary shall not be a Subsidiary of ours or a Subsidiary of any of our Subsidiaries. Unless the context requires otherwise, Subsidiary means each direct and indirect Subsidiary of ours.

Treasury Rate means, as of any Redemption Date, the yield to maturity as of that Redemption Date of United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15(519) that has become publicly available at least two Business Days before the Redemption Date (or, if that Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the Redemption Date to August 15, 2008; *provided, however*, that if the period from the Redemption Date to August 15, 2008 is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year shall be used.

Unrestricted Subsidiary means any of our subsidiaries that does not own any Capital Stock of, or own or hold any Lien on any property of, us or any of our Subsidiaries and that, at the time of determination, shall be an Unrestricted Subsidiary (as designated by our Board of Directors); provided that such subsidiary at the time of such designation

(1) has no Indebtedness other than Non-Recourse Indebtedness,

(2) is not party to any agreement, contract, arrangement or understanding with us or any of our Subsidiaries unless the terms of any such agreement, contract, arrangement or understanding are no less favorable to us or such Subsidiary than those that might be obtained at the time from Persons who are not our Affiliates,

- (3) is a Person with respect to which neither we nor any of our Subsidiaries has any direct or indirect obligation (a) to subscribe for additional Equity Interests or (b) to maintain or preserve such Person s financial condition or to cause such Person to achieve any specified levels of operating results, and
- (4) has not guaranteed or otherwise directly or indirectly provided credit support for any Indebtedness of ours or any of our Subsidiaries, other than Guarantees of the notes.

Our Board of Directors may designate any Unrestricted Subsidiary to be a Subsidiary; *provided* that (1) no Default or Event of Default is existing or will occur as a consequence thereof and (2) immediately after giving effect to such designation, on a proforma basis, we could incur at least \$1.00 of Indebtedness pursuant to the Debt Incurrence Ratio set forth in the covenant described above under the heading Limitation on Incurrence of Additional Indebtedness and Disqualified Capital Stock. Each such designation shall be evidenced by filing with the Trustee a certified copy of the resolution giving effect to such designation and an Officers Certificate certifying that such designation complied with the foregoing conditions.

U.S. Government Obligations means direct non-callable obligations of, or non-callable obligations guaranteed by, the United States of America for the payment of which obligation or guarantee the full faith and credit of the United States of America is pledged.

Voting Equity Interests means Equity Interests which at the time are entitled to vote in the election of, as applicable, directors, members or partners generally.

Wholly Owned Subsidiary means a Subsidiary all the Equity Interests of which (other than directors qualifying shares to the extent required by applicable law) are owned by us or one or more of our Wholly Owned Subsidiaries.

Form, Denomination, Transfer, Exchange and Book-Entry Procedures

We will issue exchange notes only in fully registered form, without interest coupons, in denominations of \$1,000 and integral multiples of \$1,000. We will not issue notes in bearer form. We initially issued the private notes, and will initially issue the exchange notes, in the form of one or more global notes (**Global Notes**). We will deposit the Global Notes upon issuance with the Trustee as custodian for The Depository Trust Company (**DTC**), in New York, New York, and register the Global Notes in the name of DTC or its nominee, in each case for credit to an account of a direct or indirect participant in DTC as described below.

Exchanges of Book-Entry Notes for Certificated Notes

You may not exchange your beneficial interest in a Global Note for a note in certificated form unless:

(1) DTC (a) notifies us that it is unwilling or unable to continue as depository for the Global Note or (b) has ceased to be a clearing agency registered under the Securities Exchange Act of 1934, as amended (the Exchange Act), and in either case we thereupon fail to appoint a successor depository; or

- (2) We, at our option, notify the Trustee in writing that we are electing to issue the notes in certificated form; or
- (3) an Event of Default shall have occurred and be continuing with respect to the notes.

In all cases, certificated notes delivered in exchange for any Global Note or beneficial interests therein will be registered in the names, and issued in any approved denominations, requested by or on behalf of the depository (in accordance with its customary procedures). Any certificated notes issued in exchange for an interest in a Global Note will bear the legend restricting transfers that is borne by such Global Note. Any such exchange will be effected through the DWAC system and an appropriate adjustment will be made in the records of the Security Registrar to reflect a decrease in the principal amount of the relevant Global Note.

Certain Book-Entry Procedures

The description of the operations and procedures of DTC, Euroclear Bank S.A./N.V. (as operator of the Euroclear system, **Euroclear**) and Clearstream Banking Luxembourg (**Clearstream**)) that follows is provided solely as a matter of convenience. These operations and procedures are solely within their control and are subject to changes by them from time to time. We take no responsibility for these operations and procedures and urge you to contact the system or their participants directly to discuss these matters.

DTC has advised us as follows: DTC is a limited purpose trust company organized under the laws of the State of New York, a member of the Federal Reserve System, a clearing corporation within the meaning of the Uniform Commercial Code and a Clearing Agency registered pursuant to the provisions of Section 17A of the Exchange Act. DTC was created to hold securities for its participants (**participants**) and facilitate the clearance and settlement of securities transactions between participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical transfer and delivery of certificates. Participants include securities brokers and dealers, banks, trust companies and clearing corporations and may include certain other organizations. Indirect access to the DTC system is available to other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, either directly or indirectly (**indirect participants**).

DTC has advised us that its current practice, upon the issuance of the Global Notes, is to credit, on its internal system, the respective principal amount of the individual beneficial interests represented by such Global Notes to the accounts with DTC of the participants through which such interests are to be held. Ownership of beneficial interests in the Global Notes will be shown on, and the transfer of that ownership will be effected only through, records maintained by DTC or its nominees (with respect to interests of participants).

As long as DTC, or its nominee, is the registered Holder of a Global Note, DTC or such nominee, as the case may be, will be considered the sole owner and Holder of the notes represented by such Global Note for all purposes under the indenture governing the notes and the Notes. Except in the limited circumstances described above under Exchanges of Book-Entry Notes for Certificated Notes, you will not be entitled to have any portions of a Global Note registered in your names, will not receive or be entitled to receive physical delivery of notes in definitive form and will not be considered the owner or Holder of a Global Note (or any note represented thereby) under the indenture governing the note or the notes.

You may hold your interests in the Global Notes directly through DTC, if you are participants in such system, or indirectly through organizations (including Euroclear and Clearstream) which are participants in such system. Euroclear and Clearstream will hold interests in the Regulation S Global Note on behalf of their participants through customers securities accounts in their respective names on the books of their respective depositories. The depositories, in turn, will hold such interests in such Global Note in customers securities accounts in the depositories names on the books of DTC. All interests in a Global Note, including those held through Euroclear or Clearstream, will be subject to the procedures and requirements of DTC. Those interests held through Euroclear or Clearstream will also be subject to the procedures and requirements of such system.

The laws of some states require that certain persons take physical delivery in definitive form of securities that they own. Consequently, your ability to transfer your beneficial interests in a Global Note to such persons may be limited to that extent. Because DTC can act only on behalf of its participants, which in turn act on behalf of indirect participants and certain banks, your ability to pledge your interests in a Global Note to persons or entities that do not participate in the DTC system, or otherwise take actions in respect of such interests, may be affected by the lack of a physical certificate evidencing such interests.

We will make payments of the principal of, premium, if any, and interest on Global Notes to DTC or its nominee as the registered owner thereof. Neither we nor the Trustee nor any of our or their respective agents will have any responsibility or liability for any aspect of the records relating to or payments made on account of

beneficial ownership interests in the Global Notes or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

We expect that DTC or its nominee, upon receipt of any payment of principal or interest in respect of a Global Note representing any notes held by it or its nominee, will immediately credit participants accounts with payments in amounts proportionate to their respective beneficial interests in the principal amount of such Global Note for such notes as shown on the records of DTC or its nominee. We also expect that payments by participants to owners of beneficial interests in such Global Note held through such participants will be governed by standing instructions and customary practices, as is now the case with securities held for the accounts of customers registered in street name. Such payment will be the responsibility of such participants.

Except for trades involving only Euroclear and Clearstream participants, interests in the Global Note will trade in DTC s settlement system, and secondary market trading activity in such interests will therefore settle in immediately available funds, subject in all cases to the rules and procedures of DTC and its participants. Transfers between participants in DTC will be effected in accordance with DTC s procedures, and will be settled in same-day funds. Transfers between participants in Euroclear and Clearstream will be effected in the ordinary way in accordance with their respective rules and operating procedures.

Subject to compliance with the transfer and exchange provisions applicable to the notes described elsewhere herein, cross-market transfers between DTC participants, on the one hand, and Euroclear or Clearstream participants, on the other hand, will be effected by DTC in accordance with DTC s rules on behalf of Euroclear or Clearstream, as the case may be, by its respective depository; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (Brussels time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its respective depository to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant Global Note in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear participants and Clearstream participants may not deliver instructions directly to the depositories for Euroclear or Clearstream.

Because of time zone differences, the securities account of a Euroclear or Clearstream participant purchasing an interest in a Global Note from a DTC participant will be credited, and any such crediting will be reported to the relevant Euroclear or Clearstream participant, during the securities settlement processing day (which must be a business day for Euroclear and Clearstream) immediately following the DTC settlement date. Cash received in Euroclear or Clearstream as a result of sales of interests in a Global Note by or through a Euroclear or Clearstream participant to a DTC participant will be received with value on the DTC settlement date but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following the DTC settlement date.

DTC has advised us that DTC will take any action permitted to be taken by a Holder of notes (including the presentation of notes for exchange as described above) only at the direction of one or more participants to whose account with DTC interests in the Global Notes are credited and only in respect of such portion of the aggregate principal amount of the notes as to which such participant or participants has or have given such direction. However, if there is an Event of Default under the notes, the Global Notes will be exchanged for legended notes in certificated form, and distributed to DTC s participants.

Although DTC, Euroclear and Clearstream have agreed to the foregoing procedures in order to facilitate transfers of beneficial ownership interests in the Global Notes among participants of DTC, they are under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued at any time. None of we, the Trustee or any of our or their respective agents will have any responsibility for the performance by DTC, Euroclear and Clearstream, their participants or indirect participants of their respective obligations under the rules and procedures governing their operations, including maintaining, supervising or reviewing the records relating to, or payments made on account

of, beneficial ownership interests in Global Notes.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of the material United States federal income tax considerations relating to the exchange of your private notes for exchange notes in the exchange offer, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based on laws, regulations, rulings and decisions now in effect, all of which are subject to change possibly with retroactive effect. We have not sought any ruling from the Internal Revenue Service or an opinion of counsel with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the Internal Revenue Service will agree with such statements and conclusions.

This discussion assumes that the notes are held as capital assets, and this discussion only applies to you if you exchange your private notes for exchange notes in the exchange offer. This discussion also does not address the tax considerations arising under the laws of any foreign, state or local jurisdiction. In addition, this discussion does not address all tax considerations applicable to your particular circumstances or if you are subject to special tax rules, including, without limitation, if you are:

a bank, insurance company or other financial institution;

a holder subject to the alternative minimum tax;

a tax-exempt organization;

a foreign person or entity;

a dealer in securities or commodities;

a trader in securities that elects to use a mark-to-market method of accounting for their securities holdings;

a holder whose functional currency is not the U.S. dollar;

a person that will hold notes as a position in a hedging transaction, straddle or conversion transaction for tax purposes; or

a person deemed to sell notes under the constructive sale provisions of the Internal Revenue Code of 1986, as amended.

If a partnership holds notes, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. Partnerships holding our notes, and partners in such partnerships, should consult their tax advisors regarding the tax consequences of the exchange of the private notes for exchange notes in the exchange offer.

You are urged to consult your tax advisor with respect to the application of the United States federal income tax laws to your particular situation as well as any tax consequences arising under the federal estate or gift tax rules or under the laws of any state, local, foreign or other taxing jurisdiction or under any applicable tax treaty.

The exchange of private notes for exchange notes will be treated as a non-event for federal income tax purposes because the exchange notes will not be considered to differ materially in kind or extent from the private notes. As a result, no material federal income tax consequences will result to you from exchanging private notes for exchange notes.

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PLAN OF DISTRIBUTION

Each broker-dealer that receives exchange notes for its own account pursuant to the exchange offer must acknowledge that it will deliver a prospectus in connection with any resale of the exchange notes. Broker-dealers may use this prospectus, as it may be amended or supplemented from time to time, in connection with the resale of exchange notes received in exchange for private notes where the broker-dealer acquired the private notes as a result of market-making activities or other trading activities. We have agreed that after this registration statement is declared effective by the SEC and until 180 days after the exchange offer has been completed or such time as broker-dealers no longer own any transfer restricted securities, we will make this prospectus, as amended or supplemented, available to any broker-dealer that requests it in the letter of transmittal for use in connection with any such resale.

We will not receive any proceeds from any sale of exchange notes by broker-dealers or any other persons. Broker-dealers may sell exchange notes received by broker-dealers for their own account pursuant to the exchange offer from time to time in one or more transactions in the over-the-counter market, in negotiated transactions, through the writing of options on the exchange notes or a combination of such methods of resale, at market prices prevailing at the time of resale, at prices related to the prevailing market prices or negotiated prices. Broker-dealers may resell exchange notes directly to purchasers or to or through brokers or dealers who may receive compensation in the form of commissions or concessions from any broker-dealer and/or the purchasers of the exchange notes. Any broker-dealer that resells exchange notes that were received by it for its own account pursuant to the exchange offer and any broker or dealer that participates in a distribution of the exchange notes may be deemed to be underwriters within the meaning of the Securities Act and any profit on any resale of exchange notes and any commissions or concessions received by any such persons may be deemed to be underwriting compensation under the Securities Act. The letter of transmittal states that by acknowledging that it will deliver and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an underwriter within the meaning of the Securities Act.

We have agreed to pay all expenses incident to our performance of, or compliance with, the registration rights agreement and will indemnify the holders of the notes (including any broker-dealers) against liabilities under the Securities Act.

By its acceptance of the exchange offer, any broker-dealer that receives exchange notes pursuant to the exchange offer agrees to notify us before using the prospectus in connection with the sale or transfer of exchange notes. The broker-dealer further acknowledges and agrees that, upon receipt of notice from us of the happening of any event which makes any statement in the prospectus untrue in any material respect or which requires the making of any changes in the prospectus to make the statements in the prospectus not misleading or which may impose upon us disclosure obligations that my have a material adverse effect on us, which notice we agree to deliver promptly to the broker-dealer, the broker-dealer will suspend use of the prospectus until we have notified the broker-dealer that delivery of the prospectus may resume and have furnished copies of any amendment or supplement to the prospectus to the broker-dealer.

LEGAL MATTERS

Certain legal matters with regard to the validity of the exchange notes will be passed upon for us by Latham & Watkins LLP, San Francisco, California.

EXPERTS

The consolidated financial statements and the related consolidated financial statement schedules incorporated in this prospectus by reference from the Company s Annual Report on Form 10-K for the year ended December 31, 2002 have been audited by Deloitte & Touche LLP, independent auditors, as stated in their reports, (which reports express unqualified opinions and include explanatory paragraphs as to the Company s change in its method of accounting for goodwill and intangible assets and to the application of procedures relating to certain disclosures of financial statement amounts related to the 2001 and 2000 financial statements that were audited by other auditors who have ceased operations and for which we have expressed no opinion or other form of assurance other than with respect to such disclosures) which are incorporated herein by reference, and have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

AVAILABLE INFORMATION

This prospectus is part of a registration statement on Form S-4 that we have filed with the SEC under the Securities Act. This prospectus does not contain all of the information set forth in the registration statement. For further information about us and the notes, you should refer to the documents to which we refer you. Since this prospectus may not contain all of the information that you may find important, you should review the full text of these documents. We have filed these documents as exhibits to our registration statement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC s public reference room in Washington, D.C. Please call the SEC at 1-888-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public from the SEC s web site at www.sec.gov or from our website at www.bio-rad.com. However, the information on our website does not constitute a part of this prospectus.

INCORPORATION BY REFERENCE

We have elected to incorporate by reference certain information into this prospectus. By incorporating by reference, we can disclose important information to you by referring you to another document we have filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for information incorporated by reference that is superseded by information contained in this prospectus. This prospectus incorporates by reference the documents set forth below that we have previously filed with the SEC:

Bio-Rad SEC Filings (File No. 001-07928)	Filed on
Annual Report on Form 10-K (including information specifically incorporated by reference into our Form 10-K from our Annual Report to Stockholders for the fiscal year ended December 31, 2002 and Proxy Statement for our 2003	
Annual Meeting of Stockholders)	March 26, 2003
Quarterly Report on Form 10-Q	May 13, 2003
Current Report on Form 8-K	July 21, 2003
Current Report on Form 8-K (except for the information furnished pursuant to Item 12 of such report, which	
information is not deemed filed for purposes of the Exchange Act)	July 30, 2003
Quarterly Report on Form 10-Q	August 6, 2003
Current Report on Form 8-K	August 8, 2003

We are also incorporating by reference all other reports that we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of this prospectus and the date of the completion of the exchange offer.

GLOSSARY OF TERMS

autoimmune disorder or disease	A condition in which an individual s immune system starts reacting against his or her own tissues, causing diseases such as lupus.
Biotechnology	The industrial use of living organisms or biological techniques developed through basic research.
bovine spongiform encephalopathy (BSE)	A chronic, degenerative disorder affecting the central nervous system of cattle, commonly referred to as mad cow disease.
Chromatography	An analytical technique used to separate molecules based on how they tend to cling to or dissolve in various solids, liquids and gases.
DNA	(deoxyribonucleic acid): The molecule that encodes genetic information.
electrophoresis	(ionophoresis): A method of separating large molecules (such as DNA fragments or proteins) from a mixture of similar molecules.
epidemiology	The scientific study of diseases; includes analyzing the occurrence and distribution of diseases and the factors that govern their spread.
gel electrophoresis	Electrophoresis in which large molecules (as proteins and nucleic acids) migrate through a gel and separate into bands according to size.
gene transfer	The transfer of genes into a cell by any of a number of different methods available.
genetics	The study of the patterns of inheritance of specific traits.
genomics	The study of genes, which includes genome mapping, gene sequencing and gene function.
hemoglobin	The protein in red blood cells that carries oxygen.
hemoglobin A1c	A form of hemoglobin which is elevated in diabetics and its concentration is directly related to average glucose concentration.
imaging	Radiological production of a clinical image using x-rays, ultrasound, computed tomography, magnetic resonance, radionuclide scanning, thermography, etc.; especially, cross-sectional imaging, such as ultrasonography, CT, or MRI.

The action or process of producing an image especially by means other than visible light (acoustic imaging) compare magnetic resonance imaging.

medical imaging: The use of MRI scans, x-rays, PET scans, CT scans, etc. to create pictures of various features of the human body to aid in medical diagnosis.

Immunoassay	A test which uses the affinity of antibodies for a particular antigenic target, such as a bacterial or viral antigen, to identify its presence in a given sample. In clinical diagnostics, different methodologies such as radioimmunoassay (RIA) and enzyme immunoassay (EIA) are used to give qualitative or quantitative determinations from patients samples.
Immunology	A subfield of biology that deals with the study of antigens and the immune process and how humans and higher animals fight off disease.
Informatics	The study of the application of computer and statistical techniques to the management of information. In genome projects, informatics includes the development of methods to search databases quickly, to analyze DNA sequence information, and to predict protein sequence and structure from DNA sequence data.
	bioinformatics: The use of computers in solving information problems in the life sciences; mainly, it involves the creation of extensive electronic databases on genomes, protein sequences, etc. Secondarily, it involves techniques such as the three-dimensional modeling of biomolecules and biologic systems.
	medical informatics: The use of computers and software to solve clinical or health care problems and the use of algorithms to improve communication, understanding and management of medical information.
liquid chromatography	A method of separating and purifying a substance into its component parts.
microbiology	The study of organisms that are too small to be seen with the naked eye, such as bacteria, viruses and yeasts.
proteomics	The study of the protein complement of genes.
reagent	A substance used (as in detecting or measuring a component, in preparing a product, or in developing photographs) because of its chemical or biological activity.
spectroscopy	1: the production and investigation of spectra.
	2: the process or technique of using a spectroscope or spectrometer.
toxicology	The scientific study of the chemistry, effects and treatment of poisonous substances.
Virology	The scientific study of viral and viral infections.

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INDEPENDENT AUDITORS REPORT

To the Board of Directors and Shareholders of Bio-Rad Laboratories, Inc.

We have audited the accompanying consolidated balance sheet of Bio-Rad Laboratories, Inc. and subsidiaries (the Company) as of December 31, 2002, and the related consolidated statements of income, changes in stockholders equity, and cash flows for the year 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. The consolidated financial statements of the Company and subsidiaries as of December 31, 2001 and for the years ended December 31, 2001 and 2000 were audited by other auditors who have ceased operations. Those auditors expressed an unqualified opinion on those financial statements in their report dated February 4, 2002, (February 6, 2002, as to a subsequent event).

We conducted our audit in accordance with auditing standards generally accepted 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, such 2002 consolidated financial statements present fairly, in all material respects, the financial position of Bio-Rad Laboratories, Inc. and subsidiaries as of December 31, 2002, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 5 to the consolidated financial statements, in 2002 the Company changed its method of accounting for goodwill and intangible assets to conform to Statement of Financial Accounting Standards (SFAS) No. 142, Goodwill and Other Intangible Assets.

As discussed above, the consolidated financial statements of the Company as of and for the years ended December 31, 2001 and 2000 were audited by other auditors who have ceased operations. As described in Note 5, these consolidated financial statements have been revised to include the transitional disclosures required by SFAS No. 142, Goodwill and Other Intangible Assets, which was adopted by the Company as of January 1, 2002. Our audit procedures with respect to the disclosures in Note 5 with respect to 2001 and 2000 included (i) agreeing the previously reported net income to the previously issued financial statements and the adjustments to reported net income representing amortization expense (including any related tax effects) recognized in those periods related to goodwill to the Company s underlying records obtained from management, and (ii) testing the mathematical accuracy of the reconciliation of adjusted net income to reported net income, and the related earnings per share amounts. However, we were not engaged to audit, review, or apply any procedures to the 2001 and 2000 consolidated financial statements of the Company other than with respect to such disclosures and, accordingly, we do not express an opinion or any other form of assurance on the 2001 and 2000 consolidated financial statements taken as a whole.

/s/ deloitte & touche llp

San Francisco, California

February 5, 2003

This report is a copy of the previously issued report covering 2001, 2000, and 1999. The predecessor auditors have not reissued their report.

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Stockholders and Board of Directors of Bio-Rad Laboratories, Inc.:

We have audited the accompanying consolidated balance sheets of Bio-Rad Laboratories, Inc. (a Delaware Corporation) and subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of income, cash flows and changes in stockholders equity for each of the three years in the period ended December 31, 2001. 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 the 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. 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of Bio-Rad Laboratories, Inc. and subsidiaries as of December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States.

ARTHUR ANDERSEN LLP

San Francisco, California

February 4, 2002, except for Note 7,

as to which the date is February 6, 2002

BIO-RAD LABORATORIES, INC.

CONSOLIDATED BALANCE SHEETS

(in thousands, except share data)

	Decem	December 31,		
	2002	2001		
Assets				
Current Assets:				
Cash and cash equivalents	\$ 27,733	\$ 47,129		
Accounts receivable, less allowance of \$12,122 in 2002 and \$11,509 in 2001	212,282	194,400		
Inventories, net:	212,202	171,100		
Raw materials	40,559	33,488		
Work in process	30,790	28,715		
Finished goods	95,023	76,976		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Total inventories	166,372	139,179		
Deferred tax assets	37,052	27,537		
Prepaid expenses and other current assets	22,357	22,583		
Total current assets	465,796	430,828		
Property, Plant and Equipment:				
Land and improvements	9,572	9,658		
Buildings and leasehold improvements	80,531	75,231		
Equipment	239,404	191,284		
Total property, plant and equipment	329,507	276,173		
Accumulated depreciation	(187,272)	(143,199)		
Net property, plant and equipment	142.235	132,974		
Goodwill, net of accumulated amortization of \$21,736 in 2002 and \$21,736 in 2001	69,519	77,703		
Other Assets	43,153	42,523		
	13,100	12,525		
Total Assets	\$ 720,703	\$ 684,028		
	¢ 720,703	\$ 001,020		
Liabilities and Stockholders Equity				
Current Liabilities:				
Accounts payable	\$ 75,233	\$ 64,903		
Accrued payroll and employee benefits	72,213	58,434		
Notes payable	6,726	4,211		
Current maturities of long-term debt	760	5,720		
Sales, income and other taxes payable	17.019	18,633		
Other current liabilities	50,058	47,205		
		,200		
Total current liabilities	222,009	199,106		
Long-Term Debt, net of current maturities	105,768	188,423		
Deferred Tax Liabilities	9,839	12,622		
Total liabilities	337.616	400.151		
	557,010	.00,101		

Commitments and Contingent Liabilities		
Stockholders Equity:		
Preferred stock, \$0.0001 par value, 7,500,000 shares authorized; none outstanding		
Class A common stock, \$0.0001 par value, 50,000,000 shares authorized; outstanding 2002 20,402,462; 2001 20,166,636	2	2
Class B common stock, \$0.0001 par value, 20,000,000 shares authorized; outstanding 2002 4,846,942; 2001 4,826,562	1	
Additional paid-in capital	36,141	32,171
Class A treasury stock, zero shares in 2002 and 161,336 shares in 2001 at cost		(1,863)
Retained earnings	344,841	276,554
Accumulated other comprehensive income (loss):		
Currency translation and other	2,102	(22,987)
Total stockholders equity	383,087	283,877
Total Liabilities and Stockholders Equity	\$ 720,703	\$ 684,028

The accompanying notes are an integral part of these statements.

BIO-RAD LABORATORIES, INC.

CONSOLIDATED STATEMENTS OF INCOME

(in thousands, except per share data)

	Year Ended December 31,			
	2002	2001	2000	
Net sales	\$ 892,720	\$ 817,509	\$ 725,884	
Cost of goods sold	383,235	362,140	348,450	
Gross profit	509,485	455,369	377,434	
Selling, general and administrative expense	289,175	264,745	245,866	
Product research and development expense	82,935	76,543	68,140	
Goodwill amortization	,	7,746	8,109	
Loss (gain) on divestitures		5,150	(21,845)	
Interest expense	28,207	24,088	30,612	
Foreign exchange losses	5,441	2,097	420	
Other, net	(678)	10,031	689	
Income before taxes and cumulative effect of change in accounting principle	104.405	64,969	45,443	
Provision for income taxes	- ,		- , -	
Provision for income taxes	(36,542)	(20,790)	(13,633)	
Income before cumulative effect of change in accounting principle	67,863	44,179	31,810	
Cumulative effect of accounting change, net of taxes of \$515 (see Note 1)			(710)	
Net income	\$ 67,863	\$ 44,179	\$ 31,100	
Basic earnings per share:				
Income before cumulative effect of change in accounting principle	\$ 2.70	\$ 1.79	\$ 1.30	
Cumulative effect of accounting change			(0.03)	
NT / '	¢ 2.70	¢ 1.70	\$ 1.27	
Net income	\$ 2.70	\$ 1.79	\$ 1.27	
Weighted average common shares	25.104	24,648	24,422	
		,	,	
Diluted earnings per share:				
Income before cumulative effect of change in accounting principle	\$ 2.61	\$ 1.74	\$ 1.30	
Cumulative effect of accounting change			(0.03)	
Net income	\$ 2.61	\$ 1.74	\$ 1.27	
Weighted average common shares	26,021	25,442	24,568	

The accompanying notes are an integral part of these statements.

BIO-RAD LABORATORIES, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	Yea	Year Ended December 31,		
	2002	2001	2000	
Cash flows from operating activities:				
Cash received from customers	\$ 885,835	\$ 787,179	\$ 707,046	
Cash paid to suppliers and employees	(711,341)	(665,572)	(636,054)	
Interest paid	(25,832)	(22,064)	(23,873)	
Income tax payments	(43,939)	(5,296)	(12,294)	
Miscellaneous receipts (payments)	112	5,248	(10,578)	
Net cash provided by operating activities	104,835	99,495	24,247	
Cash flows from investing activities:	,	,	, i i i i i i i i i i i i i i i i i i i	
Capital expenditures, net	(42,224)	(43,228)	(31,406)	
Payments for acquisitions	(8,568)	(4,650)		
Proceeds from divestitures			34,118	
Purchases of marketable securities and investments	(1,887)	(567)	(326)	
Sales of marketable securities and investments	493	497	795	
Foreign currency hedges, net	(2,270)	410	6,115	
Net cash provided by (used in) investing activities	(54,456)	(47,538)	9,296	
Cash flows from financing activities:				
Net borrowings (payments) on notes payable	5,031	(1,884)	(4,325)	
Long-term borrowings	44,025	74,250	438,487	
Payments on long-term debt	(133,517)	(97,209)	(473,278)	
Arrangement and other fees for long-term acquisition financing			(4,500)	
Proceeds from issuance of common stock	3,970	575	305	
Purchase of treasury stock		(261)	(378)	
Reissuance of treasury stock	2,287	4,367	2,083	
Net cash used in financing activities	(78,204)	(20,162)	(41,606)	
Effect of exchange rate changes on cash	8,429	1,380	4,930	
Net increase (decrease) in cash and cash equivalents	(19,396)	33,175	(3,133)	
Cash and cash equivalents at beginning of year	47,129	13,954	17,087	
Cash and cash equivalents at end of year	\$ 27,733	\$ 47,129	\$ 13,954	

The accompanying notes are an integral part of these statements.

BIO-RAD LABORATORIES, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS EQUITY

(in thousands)

	Yea	Year Ended December 31,			
2002		2001	2000		
Common Stock, \$0.0001 par value:					
Balance at beginning of year	\$ 2	\$ 2	\$ 2		
Issuance of common stock	1				
Balance at end of year	3	2	2		
Additional Paid-In Capital:					
Balance at beginning of year	32,171	31,596	31,291		
Issuance of common stock	3,970	575	305		
Balance at end of year	36,141	32,171	31,596		
Treasury Stock:					
Balance at beginning of year	(1,863)	(5,415)	(7,392)		
Purchase of treasury stock		(261)	(378)		
Reissuance of treasury stock	1,863	3,813	2,355		
Balance at end of year		(1,863)	(5,415)		
Retained Earnings:					
Balance at beginning of year	276,554	231,821	200,993		
Net income	67,863	44,179	31,100		
Reissuance of treasury stock at more than (less than) cost	424	554	(272)		
Balance at end of year	344,841	276,554	231,821		
Accumulated Other Comprehensive Income (Loss):					
Balance at beginning of year	(22,987)	(13,386)	(4,780)		
Other comprehensive income (loss)	25,089	(9,601)	(8,606)		
Balance at end of year	2,102	(22,987)	(13,386)		
Total Stockholders Equity	\$ 383,087	\$ 283,877	\$ 244,618		
Comprehensive Income, net of tax:		* * * * * = 	* * * *		
Net income	\$ 67,863	\$ 44,179	\$ 31,100		
Currency translation adjustments	25,241	(9,458)	(8,804)		
Net unrealized holding gains (losses)	(59)	(12)	533		
Reclassification adjustments for gains included in net income	(93)	(131)	(335)		
Total Comprehensive Income	\$ 92,952	\$ 34,578	\$ 22,494		

The accompanying notes are an integral part of these statements.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Significant Accounting Policies

Basis of Presentation

The consolidated financial statements include the accounts of Bio-Rad Laboratories, Inc. and all subsidiaries (Bio-Rad or the Company) after elimination of intercompany balances and transactions. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Reclassifications

Beginning January 1, 2002, the Company has classified freight costs related to shipping and handling as part of cost of goods sold rather than in selling, general and administrative expense as allowed by Financial Accounting Standards Board Emerging Issues Task Force Issue No. 00-10, Accounting for Shipping and Handling Fees and Costs. Prior period shipping costs have been reclassified to conform to the current year presentation. See Shipping and Handling .

The Company has changed the presentation of the income statement to eliminate the subtotal Income from Operations and provide further clarification of items previously grouped in Other, net.

Certain other items have been reclassified to conform to the current year-end presentation.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and highly liquid investments with original maturities of three months or less which are readily convertible into cash. Cash equivalents are stated at cost, which approximates fair market value.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist primarily of cash and cash equivalents and trade accounts receivable. Cash and cash equivalents are placed with major financial institutions. The Company performs credit evaluation procedures and with the exception of certain developing countries, generally does not require collateral. As a result of increased risk in these countries, some Bio-Rad sales are subject to collateral letters of credit. Credit risk is limited due to the large number of customers and their dispersion across many geographic areas. However, a significant amount of trade receivables are with national healthcare systems in countries within the European Economic Community. The Company does not currently anticipate a credit risk associated with these receivables.

Inventory Valuation

Inventories are valued at the lower of average cost or market and include material, labor and overhead costs. Management periodically reviews the need for an inventory obsolescence reserve. In evaluating this reserve, technology changes, competition, customer demand and manufacturing quality are considered.

Property, Plant and Equipment

Property, plant and equipment are carried at historical cost. Included in property, plant and equipment is reagent rental equipment. The Company provides these instruments to its customers for use with the Company s reagents.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Depreciation is computed on a straight-line basis over the estimated useful lives of the assets. Buildings and leasehold improvements are amortized over 15-30 years or the lives of the leases or improvements, whichever is shorter. Equipment is depreciated over 3-12 years.

Goodwill

Goodwill, representing the excess of the cost over the net tangible and identifiable intangible assets of acquired businesses, is stated at cost and through December 31, 2001 has been amortized on a straight-line basis over the estimated future periods to be benefited, typically ten to fifteen years. Beginning January 1, 2002, the Company adopted Statement of Financial Accounting Standards (SFAS) No. 142, Goodwill and Other Intangible Assets which provides that goodwill is no longer subject to amortization over its useful life. Goodwill is assessed annually for impairment applying a fair-value based test or whenever events or changes in circumstances indicate that the carrying amount may not be recoverable (see Note 5).

Income Taxes

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of temporary differences between carrying amounts and tax bases of assets and liabilities (see Note 7).

Revenue Recognition

Bio-Rad recognizes revenues when persuasive evidence of an arrangement exists, the sales price is fixed or determinable and collectibility is probable. Generally, these criteria are met at the time product is shipped.

During the fourth quarter of 2000, the Company changed its revenue recognition policies with regard to certain complex instruments sold within the Life Science segment that require installation at the customer site and customer acceptance to comply with guidelines outlined by the Securities and Exchange Commission in Staff Accounting Bulletin No. 101. The effects of the change in revenue recognition policies, as of January 1, 2000, are reported as the cumulative effect of an accounting change in the fourth quarter of 2000 amounting to \$0.7 million. This change did not have a significant effect on previously reported quarterly or prior years income.

Shipping and Handling

Pursuant to Financial Accounting Standards Board (FASB) Emerging Issues Task Force Issue No. 00-10, Accounting for Shipping and Handling Fees and Costs, the Company classifies all freight billed to customers as net sales. Related freight costs are included in cost of goods sold.

Sales Returns and Warranty

At the time the related revenue is recognized, a provision is recognized for estimated product returns.

The Company warrants certain equipment against defects in design, materials and workmanship, generally for one year. Upon shipment of that equipment, the Company establishes, as part of cost of goods sold, a provision for the expected costs of such warranty.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Components of the warranty accrual, included in Other current liabilities, were as follows (in millions):

January 1, 2002	\$ 6.1
Provision for warranty	9.0
Actual warranty costs	(8.0)
December 31, 2002	\$ 7.1

Research and Development

Internal research and development costs are expensed as incurred. Third-party research and development costs are expensed when the contracted work has been performed or as milestone results have been achieved.

Foreign Currency Translation

Balance sheet accounts of international subsidiaries are translated at the current exchange rate as of the end of the accounting period. Income statement items are translated at average exchange rates. The resulting translation adjustment is recorded as a separate component of stockholders equity.

Forward Exchange Contracts

As part of distributing its products, the Company regularly enters into intercompany transactions. The Company enters into forward foreign exchange contracts to hedge against future movements in foreign exchange rates that affect foreign currency denominated intercompany receivables and payables. The Company does not use derivative financial instruments for speculative or trading purposes. In accordance with SFAS No. 133 Accounting for Derivative Instruments and Hedging Activities, the Company does not seek hedge accounting treatment for these contracts. As a result, these contracts, generally with maturity dates of 90 days or less and related primarily to currencies of industrial countries, are marked to market at each balance sheet date. Exchange gains and losses on these contracts are net of premiums and discounts. The resulting gains or losses offset exchange losses or gains on the related receivables and payables. The cash flows related to these contracts are classified as cash flows from investing activities in the Statement of Cash Flows.

Stock Compensation Plans

At December 31, 2002, the Company has stock-based employee compensation plans which are described more fully in Note 9. The Company applies the recognition and measurement principles of APB Opinion No. 25, Accounting for Stock Issued to Employees, and related interpretations in accounting for those plans. No stock-based employee compensation expense is reflected in net income as all options granted under those plans had an exercise price equal to or greater than the market value of the underlying common stock on the date of grant.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Had compensation cost for stock option grants been determined pursuant to SFAS No. 123, Accounting for Stock-Based Compensation, the Company s pro forma net income and earnings per share would have been as follows (in millions, except per share data):

	Year Ended December 31,		
	2002	2001	2000
Net income, as reported	\$ 67.9	\$44.2	\$ 31.1
Deduct: Total stock-based employee compensation expense determined under fair value methods for all awards, net of related tax effects	(1.8)	(1.3)	(1.2)
Pro forma net income	\$66.1	\$ 42.9	\$ 29.9
			_
Earnings per share:			
Basic-as reported	\$ 2.70	\$1.79	\$1.27
Basic-pro forma	\$ 2.63	\$1.74	\$ 1.22
Diluted-as reported	\$ 2.61	\$1.74	\$ 1.27
Diluted-pro forma	\$ 2.55	\$ 1.69	\$ 1.23

Earnings Per Share

The Company calculates basic earnings per share (EPS) and diluted EPS in accordance with SFAS No. 128, Earnings per Share. Basic EPS is computed by dividing net income (loss) by the weighted average number of common shares outstanding for that period. Diluted EPS takes into account the effect of dilutive instruments, such as stock options, and uses the average share price for the period in determining the number of common stock equivalents that are to be added to the weighted average number of shares outstanding. Common stock equivalents are excluded from the diluted earnings per share calculation if the effect would be anti-dilutive. Treasury stock is not considered outstanding for purposes of calculating weighted average shares.

Fair Value of Financial Instruments

The estimated fair value of financial instruments has been determined using available market information or other appropriate valuation methodologies. Estimates are not necessarily indicative of the amounts that could be realized in a current market exchange as considerable judgment is required in interpreting market data used to develop estimates of fair value. The use of different market assumptions or estimation techniques could have a material effect on the estimated fair value amounts.

The estimated fair value of Bio-Rad s financial instruments were as follows (in millions):

Ye	Year Ended December 31,			
200	2002		2001	
Carrying Amount	Fair Value	Carrying Amount	Fair Value	
\$ 36.0	\$ 37.2	\$ 41.1	\$ 40.9	
\$ 106.5	\$131.8	\$ 194.1	\$ 201.0	

Financial instruments (e.g., notes receivable) that have fair values based on discounted cash flows, market quotations, and other appropriate valuation techniques are included in Other Assets. Long-term debt has an estimated fair value based on quoted market prices for the same or similar issues.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

For certain of the Company s financial instruments, including cash and cash equivalents, accounts receivable, marketable securities, notes payable, and accounts payable, the carrying amounts approximate fair value.

New Financial Accounting Standards

On January 1, 2002, the Company adopted SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets. SFAS No. 144 supersedes SFAS No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed of, but retains its fundamental provision for recognizing and measuring impairment of long-lived assets to be held and used. This statement requires that all long-lived assets to be disposed of by sale be carried at the lower of carrying amount or fair value less cost to sell, and that depreciation cease to be recorded on such assets. SFAS No. 144 standardizes the accounting and presentation requirements for all long-lived assets to be disposed of by sale, and supersedes previous guidance for discontinued operations of business segments. The initial adoption of SFAS No. 144 did not have any impact on the consolidated financial statements of the Company.

In April 2002, the FASB issued SFAS No. 145, Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections. One of the major changes of this statement is to change the accounting for the classification of gains and losses from the extinguishment of debt. The Company adopted SFAS No. 145 as of January 1, 2002 and will follow APB 30, Reporting the Results of Operations Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions in determining whether such extinguishment of debt may be classified as extraordinary. As a result of adoption, the expenses incurred in the repurchase of outstanding debt on the open market has been included in interest expense. No other impact from adoption was recognized.

In April 2002, the FASB issued SFAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities, which addresses accounting for restructuring and similar costs. SFAS No. 146 supersedes previous accounting guidance, principally Emerging Issues Task Force Issue No. 94-3 Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (Including Certain Costs Incurred in a Restructuring). SFAS No. 146 requires that the liability for costs associated with an exit cost or disposal activity be recognized when the liability is incurred. Under Issue 94-3, a liability for an exit cost was recognized at the date of the Company s commitment to an exit plan. SFAS No. 146 also establishes that the liability be measured and recorded at fair value. Accordingly, SFAS No. 146 may affect the timing of recognizing future restructuring costs as well as the amounts recognized. The Company will adopt the provisions of SFAS No. 146 for restructuring activities after December 31, 2002.

On December 31, 2002, the FASB issued SFAS No. 148, Accounting for Stock-Based Compensation Transition and Disclosure, an Amendment of FASB Statement No. 123. This statement provides alternative methods of transition for companies who voluntarily change to the fair value-based method of accounting for stock-based employee compensation in accordance with SFAS No. 123, Accounting for Stock-Based Compensation. The statement requires prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based compensation and the effect of the method used on reported results. The Company has adopted the disclosure requirements as required by the statement.

The Company continues to account for stock-based compensation using the intrinsic value method in accordance with the provisions of Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees, elected under SFAS No. 123, as amended. As a result, the adoption of SFAS No. 148 did not have any impact on the consolidated financial statements of the Company (see Note 9).

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. Acquisitions

On June 28, 2002, the Company purchased for cash the microarray and robotics technologies business of Virtek Biotech Inc., a subsidiary of Virtek Vision International Inc. of Waterloo, Ontario, Canada. Bio-Rad acquired the assets for approximately \$7 million and has included these operations in its Life Science segment. The Company has completed its evaluation of purchased assets and has not assigned any value to goodwill. Assets purchased include amortizable patents and other intangible assets totaling \$4.1 million with a weighted average amortization period of 5 years (see Note 5).

In July 2001, the Company acquired all the outstanding shares of Helix, Inc., a manufacturer of diagnostic products for the autoimmune market. The business combination was recorded using the purchase method in accordance with SFAS No. 141, Business Combinations. The acquisition cost was not material but did include a premium in excess of the net assets acquired.

In connection with an acquisition made by the Company in 1999, liabilities of approximately \$14.0 million for severance and other employee costs and \$4.0 million for the consolidation and closure of certain leased facilities were recorded. The closure of facilities identified by the Company was completed in fiscal 2000, with lease payments, net of sublease revenues, continuing until all contractual obligations are met. As of December 31, 2002 all costs associated with the initial liabilities had been incurred. The actual costs were approximately \$0.7 million less than the initial accrual. This difference was recorded as a reduction to expenses in 2002.

3. Divestitures

In October 2001, the Company sold the assets and certain liabilities of the Company s spectroscopy business to Digilab LLC. In the first quarter of 2001, the Company recorded a \$4.5 million non-cash pre-tax charge reflecting the estimated impact of its intent to sell the spectroscopy instrument business. In the third quarter of 2001, the Company had a write-down of \$0.7 million on the value of a related production facility.

In July 2000, Accent Semiconductor Technology, Inc. (ASTI) acquired the assets and certain liabilities of the Company s semiconductor and optoelectronic metrology business. The proceeds of approximately \$36.0 million included \$27.0 million in cash, an \$8.0 million unsecured note receivable due in five years and an 18% equity interest in ASTI. The Company used \$17.0 million of the cash proceeds to reduce borrowings on the term loan portion of the Senior Credit facility. The note receivable and the equity interest in ASTI are included in Other Assets. The equity interest is accounted for under the cost method of accounting.

4. Investment in Affiliates

In December 1997, Bio-Rad began investing in Instrumentation Laboratory, S.p.A. (IL), an Italian based clinical diagnostics company. At December 31, 2002, Bio-Rad held approximately 13% of the outstanding stock of IL. A privately held company based in Spain controls approximately 84% of the outstanding stock of IL.

In April 2001, IL offered 46.5 million newly issued ordinary shares at 1.29 Euros per share (\$1.16) to all registered shareholders. No shareholders other than the controlling shareholder subscribed. In consideration for the new shares, the controlling shareholder relieved IL of 60 million Euros of debt. In December 2001, the controlling shareholder offered to purchase for cash certain American Depository Shares (ADS) of IL for \$0.50 per ADS. This tender offer was issued in an attempt to remove IL as a Securities and Exchange Commission (SEC) registrant. The tender offer did not result in the removal of IL as a SEC registrant. The most recently filed financial statements for IL are as of November 30, 2001.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Based on a combination of many factors, including the lack of current financial information and IL s continued losses, the Company has determined that its investment has been other than temporarily impaired. As such, the Company valued its investment in IL at \$6.4 million as of December 31, 2002. This amount reflects a \$3.0 million write-down since December 31, 2001, which has been recorded in Other, net. The Company recorded a \$9.4 million write-down of its investment in IL during 2001. Although management believes that this investment is realizable, there is a possibility that future events may cause further impairment of this investment.

5. Goodwill and Other Intangible Assets

In June 2001, the Financial Accounting Standards Board (FASB) issued SFAS No. 141, Business Combinations, and SFAS No. 142, Goodwill and Other Intangible Assets. SFAS No. 141 requires that all business combinations initiated after June 30, 2001 be accounted for under the purchase method of accounting and addresses the initial recognition and measurement of goodwill and other intangible assets acquired in a business combination. SFAS No. 142 addresses the initial recognition and measurement of goodwill and other intangible assets subsequent to their acquisition. SFAS No. 142 provides that intangible assets with finite useful lives will be amortized and that goodwill and intangible assets with indefinite lives will not be amortized, but will be required to be tested at least annually for impairment.

The Company adopted SFAS No. 142 on January 1, 2002. At that date, the Company stopped the amortization of goodwill, with a net carrying value of \$77.7 million, and annual amortization of approximately \$8 million that had resulted from purchases of businesses completed prior to the adoption of SFAS No. 141. The transition impairment test for goodwill was performed as of January 1, 2002 and no impairment loss was recorded. Additionally, intangible assets that do not meet the criteria for recognition apart from goodwill must be reclassified to goodwill. As a result of the Company s analysis, no reclassification of intangible assets to goodwill was required.

Had the Company been accounting for its goodwill under SFAS No. 142 for all periods presented, the Company s net income and net income per share would have been as follows (in millions):

	Year En	Year Ended December 31,		
	2002	2001	2000	
Reported net income	\$ 67.9	\$ 44.2	\$ 31.1	
Add back goodwill amortization, net of tax		5.3	5.7	
Pro forma adjusted net income	\$ 67.9	\$ 49.5	\$ 36.8	
Basic earnings per share:				
Reported basic earnings per share	\$ 2.70	\$ 1.79	\$ 1.27	
Goodwill amortization, net of tax		0.21	0.23	

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Pro forma adjusted basic earnings per share	\$ 2.70	\$ 2.00	\$ 1.50
Diluted earnings per share:			
Reported diluted earnings per share	\$ 2.61	\$ 1.74	\$ 1.27
Goodwill amortization, net of tax		0.21	0.23
Pro forma adjusted diluted earnings per share	\$ 2.61	\$ 1.95	\$ 1.50

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The changes in the carrying amount of goodwill for the years ended December 31, 2002 and 2001 are as follows (in millions):

	Life Science	Clinical Diagnostics		-	Other perations	
December 31, 2000	\$ 38.2	\$	54.6	\$		
Amortization	(3.7)		(4.1)			
Acquired goodwill			1.4		1.4	
Tax adjustments	(4.8)		(5.3)			
December 31, 2001	\$ 29.7	\$	46.6	\$	1.4	
Tax adjustments	(3.9)		(4.3)			
December 31, 2002	\$ 25.8	\$	42.3	\$	1.4	

Goodwill balances and goodwill amortization have been included in corporate for segment reporting purposes in Note 15.

Identifiable intangible assets of \$7.1 million, net of \$8.9 million of accumulated amortization are included in Other Assets and have remaining useful lives ranging from one to ten years. The Company has no intangible assets with indefinite lives.

6. Notes Payable and Long-Term Debt

Notes payable include local credit lines maintained by the Company s subsidiaries aggregating approximately \$30.9 million, of which \$24.2 million was unused at December 31, 2002. At December 31, 2001 these lines aggregated approximately \$25.3 million, of which \$21.1 million was unused. The weighted average interest rate on these lines was 9.1% and 5.43% at December 31, 2002 and 2001, respectively. Bio-Rad Laboratories, Inc. guarantees most of these credit lines.

The principal components of Long-Term Debt are as follows (in millions):

Year Ended December 31,

	2002	2001
Senior Subordinated Notes	\$ 105.3	\$ 148.7
Senior Credit Agreement:		
Term loan		42.5
Revolving credit facility		
Other debt	1.1	1.6
Capitalized leases	0.2	1.3
	106.6	194.1
Less current maturities	0.8	5.7
Long-Term Debt	\$ 105.8	\$188.4

In September 1999, the Company entered into a \$200.0 million Senior Credit Agreement due in 2004 to finance the acquisition of Pasteur Sanofi Diagnostics and certain related assets and to provide funds for working capital needs. The Senior Credit Agreement included a term loan and revolving facility, each in the amount of \$100.0 million. The term loan has since been fully repaid.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The revolving facility is secured by an interest in the Company s assets through September 2004. Interest varies upon a number of factors including the duration of the specific borrowing and is based upon either the Eurodollar, the Federal Funds effective or the Company s corporate based rate. The interest rate on the revolving facility at December 31, 2002 was 4.50%. A commitment fee ranging from .25% to .50% annually is charged on the daily unused portion of the revolving credit facility.

The Company sold \$150.0 million aggregate principal amount of Senior Subordinated Notes due in 2007 under an indenture dated February 17, 2000. The notes were offered at 98.832% of par and pay a fixed rate of interest of 11.625% per year. The Company has the option to redeem any or all of the notes at any time prior to February 15, 2004 at a redemption price equal to 100% of the principal amount of the notes plus the applicable premium plus accrued and unpaid interest and certain other charges. The notes may be redeemed after February 14, 2004 and before February 15, 2005 in whole or part at a redemption price of 105.813%; for the interim period to February 15, 2006 at 102.906%; thereafter at 100%. The debt is non-callable until February 2004. The Company s obligations under the notes are not secured and rank junior to all the Company s existing and future senior debt.

During 2002, the Company repurchased in the open market \$43.9 million (par value) of its Senior Subordinated debt. The price paid includes interest to February 2004. The total amount of interest, unamortized debt issue cost and unamortized original issue discount recognized as a result of the repurchase was \$6.9 million and has been included in interest expense.

The Senior Credit Agreement (including amendments) and the Senior Subordinated Notes require the Company, among other things, to comply with certain financial ratios and covenants. The Company was in compliance with all financial ratios as of December 31, 2002 and 2001. These agreements also contain certain other restrictions, including limitations on payments of cash dividends, sales of assets, incurrence of indebtedness, the creation of liens, making certain investments and engaging in sale/leaseback transactions.

Maturities of long-term debt at December 31, 2002, are as follows: 2003 \$0.8 million; 2004 \$0.5 million; 2005 \$0; 2006 \$0; 2007 \$105.3 million; thereafter \$0.

7. Income Taxes

The U.S. and international components of income (loss) before taxes are as follows (in millions):

Year Ended December 31,

2002 2001 2000

U.S. International	\$ 37.6 66.8	\$ (4.8) 69.8	\$ 6.4 39.0
Income before taxes and cumulative effect of change in accounting principle	\$ 104.4	\$65.0	\$45.4

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The provision (benefit) for income taxes consists of (in millions):

	Year E	Year Ended December 31,		
	2002	2001	2000	
Connect				
Current:	¢ 11.0	A A A	Φ (1 C)	
U.S. Federal	\$ 11.8	\$ 2.8	\$ (4.6)	
International	30.8	23.7	15.3	
U.S. State	1.0	0.4	0.6	
	43.6	26.9	11.3	
Deferred:				
U.S. Federal	\$ (2.3)	\$ 0.2	\$ 1.4	
International	(4.2)	(5.3)	0.5	
U.S. State	(0.6)	(1.0)	0.4	
	(7.1)	(6.1)	2.3	
Provision for income taxes	\$ 36.5	\$ 20.8	\$13.6	

The Company s income tax provision differs from the amount computed by applying the U.S. federal statutory rate to income before taxes as follows:

	Year En	Year Ended December 31,			
	2002	2001	2000		
U.S. statutory tax rate	35%	35%	35%		
State taxes, net of federal income tax benefit		(1)	2		
Foreign Sales Corporation/EIE tax benefit	(2)	(4)	(3)		
Difference between U.S. and foreign tax rates (net of foreign tax credits)	2	(10)	(1)		
Loss carryforwards utilized	(1)	(1)			
Amortization of goodwill		4	1		
Foreign losses not benefited	2	1	4		
Capital loss not benefited	1	5			
Increase(decrease) in tax reserves	(1)	3	(1)		
Foreign exchange loss recognized			(6)		
Other	(1)		(1)		

Provision for income taxes	35%	32%	30%

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of deferred tax assets and liabilities are as follows (in millions):

	Year Decem	
	2002	2001
Deferred Tax Assets:		
Reserves for obsolete inventory, warranty and bad debts	\$ 11.5	\$ 11.7
Elimination of intercompany profit	7.8	5.8
Tax benefit of loss carryforwards	8.5	7.1
Basis difference in investment	4.1	3.1
State tax credit carryforward	4.5	4.5
Other	13.6	12.6
	50.0	44.8
Valuation allowance	(12.9)	(17.3)
Deferred Tax Assets	\$ 37.1	\$ 27.5
Deferred Tax Liabilities:		
Deferred gain on condemnation	\$ 2.9	\$ 3.9
Depreciation	1.7	2.5
Development cost of Hercules facility	1.5	1.5
Other	3.7	4.7
Deferred Tax Liabilities	\$ 9.8	\$ 12.6

At December 31, 2002, Bio-Rad s international subsidiaries had combined net operating loss carryforwards of \$11.4 million. A portion of these loss carryforwards will expire in the following years: 2005 \$0.3 million; and 2007 \$0.9 million. The remainder of these loss carryforwards have no expiration date. The utilization of these carryforwards is limited to the separate taxable income of each individual subsidiary.

At December 31, 2002, Bio-Rad has an unutilized domestic net operating loss carryforward of \$15.6 million. The loss carryforward will expire in the year 2018. The utilization of the loss carryforward is limited to Bio-Rad s domestic taxable income. At December 31, 2002, Bio-Rad has a California tax credit carryforward of \$4.5 million. The credit carryforward has no expiration date. The utilization of the tax credit carryforward is limited to the extent Bio-Rad has California taxable income.

The valuation allowance is needed to reduce the deferred tax assets to an amount that is more likely than not to be realized. The net change in the valuation allowance in 2002 was a decrease of \$4.4 million, primarily resulting from a utilization of tax loss carryforwards. The net change in 2001 was a decrease of \$4.2 million primarily resulting from the utilization of tax loss carryforwards. Utilization of carryforwards acquired as part of a 1999 acquisition which were fully reserved at the acquisition date adjusted the recorded goodwill by approximately \$8.2 million and \$3.7 million for 2002 and 2001, respectively.

Bio-Rad does not provide for taxes which would be payable if the cumulative undistributed earnings of its international subsidiaries, approximately \$124 million at December 31, 2002, were remitted to the U.S. parent company. Unless it becomes advantageous for tax or foreign exchange reasons to remit a subsidiary s earnings, such earnings are indefinitely reinvested in subsidiary operations. The withholding tax and U.S. federal income taxes on these earnings, if remitted, would in large part be offset by tax credits.

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BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Stockholders Equity

On February 4, 2002, the shareholders voted to reduce the par value of common stock and preferred stock from \$1.00 per share to \$.0001 per share and to increase the number of authorized shares of capital stock from 23,300,000 to 77,500,000 shares. An adjustment was made in the Company s stockholders equity section to reflect the reduction of par value by increasing paid-in capital. Class A common shares authorized were increased from 15,000,000 shares to 50,000,000 shares and Class B common shares authorized were increased from 6,000,000 to 20,000,000. Authorized shares of preferred stock were increased from 2,300,000 to 7,500,000.

On February 6, 2002, the Company s Board of Directors authorized a two-for-one stock split effected in the form of a 100% stock dividend. As a result of the stock split, the accompanying historical financial statements reflect the increase in the number of outstanding shares of common stock and the transfer of the par value of these shares from paid-in capital. All share and per share amounts have been restated to reflect the retroactive effect of the stock split.

Stock Classification

The Company s outstanding stock consists of Class A Common Stock (Class A) and Class B Common Stock (Class B). Each share of Class A and Class B participates equally in the earnings of Bio-Rad, and is identical in most respects except that Class A has limited voting rights. Each share of Class A is entitled to one-tenth of a vote on most matters, and each share of Class B is entitled to one vote. Additionally, Class A stockholders are entitled to elect 25% of the Board of Directors and Class B stockholders are entitled to elect the balance of the directors. Cash dividends may be paid on Class A shares without paying a cash dividend on Class B shares but no cash dividend may be paid on Class B shares unless at least an equal cash dividend is paid on Class A shares. Class B shares are convertible at any time into Class A shares on a one-for-one basis at the option of the stockholder.

9. Stock Option and Purchase Plans

Stock Option Plans

The Company maintains incentive and non-qualified stock option plans for officers and certain other key employees. No options have been issued to non-employees.

Under the Amended 1994 Stock Option Plan, the Company may grant options to its employees for up to 3,550,000 shares of common stock provided that no option shall be granted after March 1, 2004. Under the plans, Class A and Class B options are granted at prices not less than fair market value on the date of grant. Generally, options granted have a term of 10 years and vest in increments of 25% per year over a four-year period on the yearly anniversary date of the grant. For options granted after January 1, 2001, options vest in increments of 20% over a five-year period on the yearly anniversary date of the grant.

Pro forma compensation costs are calculated for the fair value of the employees purchase rights, which was estimated using the Black-Scholes method. For purposes of the pro forma disclosures, the estimated fair value of the options granted is amortized to expense over the options vesting period. There were no options granted in 2001. Assumptions used for 2002 and 2000 grants are as follows: no dividend yield for all periods; weighted average expected lives of 4.2 years in 2002 and 4.1 years in 2000; expected volatility of 35% and 30%; and risk-free interest rates of 3.99% and 6.71% for 2002 and 2000, respectively. See Note 1 for a description of the effect of the pro forma compensation expense derived using the fair value method on the Company s results.

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BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Activity under the plans is summarized below (amounts reported in the Price columns represent the weighted average exercise price):

			Year Ended De	cember 31,		
	2002	2002			2000	1
	Shares	Price	Shares	Price	Shares	Price
Outstanding at beginning of year	1,572,701	\$ 11.80	1,921,778	\$ 11.90	1,290,230	\$ 12.09
Granted	379,500	28.85	, ,		1,061,890	11.26
Exercised	(350,549)	11.67	(287,622)	12.81	(130,500)	9.48
Forfeited	(9,820)	10.90	(36,385)	10.61	(222,676)	12.31
Expired			(25,070)	13.06	(77,166)	9.11
Outstanding at end of year	1,591,832	\$ 15.84	1,572,701	\$ 11.72	1,921,778	\$ 11.90
))		9 9)-)···-	
Options exercisable at year-end	677,149	\$ 12.39	672,266	\$ 12.60	544,096	\$ 13.46
Weighted average fair value of options						
granted during the year	\$ 9.75		\$		\$ 3.46	

The following summarizes information about stock options outstanding at December 31, 2002:

	Options Outstanding			Option	s Exercisable	5	
Range of Exercise Prices	Number Outstanding at 12/31/02	Weighted Average Remaining Contractual Life	0	ted Average rcise Price	Number Exercisable at 12/31/02	0	ted Average cise Price
	at 12/51/02		Exci		at 12/51/02	Exci	
\$ 9.85 \$ 9.85	90,636	1.40 years	\$	9.85	47,557	\$	9.85
\$ 10.75 \$10.75	438,516	7.72		10.75	166,254		10.75
\$ 10.83 \$11.97	447,944	6.54		11.78	249,227		11.77
\$ 12.44 \$37.23	614,736	6.85		23.31	214,111		14.55
	1,591,832	6.69		15.84	677,149		12.39

Employee Stock Purchase Plan

The Company has an employee stock purchase plan that provides that eligible employees may contribute up to 10% of their compensation up to \$25,000 annually toward the quarterly purchase of the Company s Class A common stock. The employees purchase price is 85% of the lesser of the fair market value of the stock on the first business day or the last business day of each calendar quarter. No compensation expense is recorded in connection with the plan. The Company has authorized the sale of 1,890,000 shares of common stock under the plan. The Company sold 66,992 shares for \$1.8 million, 88,982 shares for \$1.2 million and 114,202 shares for \$1.1 million under the plan to employees in 2002, 2001 and 2000, respectively. At December 31, 2002, 340,553 shares remain authorized under the plan.

The fair value of the employees purchase rights since 1995 was estimated using the Black-Scholes model with the following assumptions for 2002, 2001 and 2000, respectively: no dividend yield for all periods; an expected life of three months for all periods; expected volatility ranging from 34% to 54%, 35% to 57%, and from 28% to 43%; and risk-free interest rates ranging from 1.50% to 1.68%, 2.36% to 5.68%, and from 5.45% to 6.46%. The weighted average fair value of those purchase rights granted in 2002, 2001 and 2000 was \$8.41, \$4.48, and \$2.55, respectively.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. Earnings Per Share

Weighted average shares used for diluted earnings per share include the dilutive effect of outstanding stock options of 917,000, 794,000 and 146,000 shares, for the years ended December 31, 2002, 2001 and 2000, respectively.

There were no anti-dilutive shares for 2002 and 2001. Options to purchase 401,000 shares of common stock were outstanding during 2000, but were excluded from the computation of diluted earnings per share because the exercise price of the options was greater than the average market price of the common shares.

11. Other Income and Expense

Other, net includes the following income and (expense) components (in millions):

	Year F	Year Ended December 31,			
	2002	2001	2000		
Write-down of investments	\$ (5.0)	\$ (10.9)	\$		
Interest income	4.0	1.3	1.0		
Miscellaneous other items	1.7	(0.4)	(1.7)		
Other, net	\$ 0.7	\$ (10.0)	\$(0.7)		

12. Supplemental Cash Flow Information

The reconciliation of net income to net cash provided by operating activities is as follows (in millions):

Year Ended December 31,

	2002	2001	2000
Net income	\$ 67.9	\$ 44.2	\$ 31.1
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	36.9	32.6	33.7
Amortization	1.1	8.7	9.5
Foreign currency hedge transactions, net	2.3	(0.4)	(6.1)
Gains on dispositions of marketable securities	(0.1)	(0.2)	(0.5)
Increase in accounts receivable, net	(0.7)	(22.6)	(0.3)
Increase in inventories, net	(16.2)	(14.0)	(18.9)
(Increase) decrease in other current assets	(12.3)	(2.8)	0.9
Increase (decrease) in accounts payable and other current liabilities	13.3	11.7	(0.6)
Increase (decrease) in income taxes payable	(6.9)	17.6	(4.6)
Increase (decrease) in deferred taxes	12.7	(1.7)	3.4
Gain on sale of semiconductor business and fixed assets			(21.8)
Loss on sale of spectroscopy business and write-down of investments	5.0	15.4	
Other	1.8	11.0	(1.6)
Net cash provided by operating activities	\$ 104.8	\$ 99.5	\$ 24.2

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. Commitments and Contingent Liabilities

Rents and Leases

Net rental expense under operating leases was \$19.5 million in 2002, \$15.8 million in 2001 and \$13.0 million in 2000. Leases are principally for facilities and automobiles.

Annual future minimum lease payments at December 31, 2002, under operating leases are as follows: 2003 \$16.8 million; 2004 \$13.7 million; 2005 \$7.7 million; 2006 \$5.9 million; 2007 \$4.7 million; subsequent to 2007 \$3.8 million.

Deferred Profit Sharing Retirement Plan

The Company has a profit sharing plan covering substantially all U.S. employees. Contributions are made at the discretion of the Board of Directors. Bio-Rad has no liability other than for the current year s contribution. Contributions charged to income were \$4.8 million, \$4.7 million and \$4.8 million in 2002, 2001 and 2000, respectively.

Foreign Exchange Contracts

The Company enters into forward foreign exchange contracts as an economic hedge against foreign currency denominated intercompany receivables and payables. At December 31, 2002, the Company had contracts maturing in January through March 2003 to sell foreign currency with a nominal value of \$85.1 million and an unrealized loss of \$0.1 million. Contracts to purchase foreign currency had a nominal value of \$26.1 million with no unrealized gain or loss.

Insurance

The Company carries a deductible for workers compensation and a portion of its group health insurance cost. Accruals for losses are based on the Company s claims experience and actuarial assumptions followed in the insurance industry. Should a greater amount of claims occur compared to the Company s estimates or cost of medical care increase beyond what has been anticipated, reserves recorded may not be sufficient and additional charges to income may be required.

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Letters of Credit

In the ordinary course of business, the Company is at times required to post letters of credit. These letters of credit are required by certain insurance companies to ensure payments of certain charges. The Company was contingently liable for approximately \$3.3 million of standby letters of credit with a bank as of December 31, 2002.

Taxes

Settlement of open tax years, as well as tax issues in other countries where the Company conducts its businesses, are not expected to have a material effect on the consolidated financial position or liquidity of the Company and, in the opinion of management, adequate provision has been made for income and franchise taxes for all years under examination or subject to future examination.

14. Legal Proceedings

The Company is a party to various claims, legal actions and complaints arising in the ordinary course of business. The Company does not believe that any ultimate liability resulting from any of these lawsuits will have

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

a material adverse effect on its results of operations, financial position or liquidity. However, the Company cannot give any assurance regarding the ultimate outcome of these lawsuits and their resolution could be material to the Company s operating results for any particular period, depending upon the level of income for the period.

15. Segment Information

Bio-Rad is a multinational manufacturer and worldwide distributor of life science research products and clinical diagnostics products. Bio-Rad has two reportable segments: Life Science and Clinical Diagnostics. These reportable segments are strategic business lines that offer different products and services and require different marketing strategies.

The Life Science segment develops, manufactures, sells and services reagents, apparatus and instruments used for biological research. These products are sold to university and medical school laboratories, pharmaceutical and biotechnology companies, food testing laboratories and government and industrial research facilities.

The Clinical Diagnostics segment develops, manufactures, sells and services automated test systems, informatics systems, test kits and specialized quality controls for the healthcare market. These products are sold to reference laboratories, hospital laboratories, state newborn screening facilities, physicians office laboratories, and insurance and forensic testing laboratories.

The remainder of the Company s former Analytical Instruments segment is included in Other Operations. The material product lines of this segment were sold in 2001 and 2000 (see Note 3).

The accounting policies of the segments are the same as those described in Significant Accounting Policies (see Note 1). Segment profit or loss used for corporate management purposes includes an allocation of corporate expense based upon sales and an allocation of interest expense based upon accounts receivable and inventories. Segments are expected to manage only assets completely under their control. Accordingly, segment assets include primarily accounts receivable, inventories and gross machinery and equipment. Goodwill balances and goodwill amortization have been included in corporate for segment reporting purposes.

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Information regarding industry segments at December 31, 2002, 2001 and 2000 and for the years then ended is as follows (in millions):

		Life Science	Clinical Diagnostics			
Segment net sales	2002	\$ 429.5	\$	455.4	\$	7.8
6	2001	379.2		417.9		20.4
	2000	263.8		409.0		53.1
Allocated interest expense	2002	\$ 8.8	\$	12.4	\$	0.1
	2001	9.3		14.3		0.5
	2000	9.3		19.4		1.9
Depreciation and amortization	2002	\$ 8.3	\$	27.4	\$	0.2
	2001	7.2		26.2		0.4
	2000	6.4		25.7		0.9
Segment profit (loss)	2002	\$ 75.2	\$	41.9	\$	(1.6)
	2001	72.8		27.3		(5.3)
	2000	14.1		25.3		(2.4)
Segment assets	2002	\$ 225.1	\$	336.4	\$	4.7
	2001	194.2		302.2		3.4
	2000	152.2		308.4		14.4
Capital expenditures	2002	\$ 10.9	\$	29.7	\$	0.1
	2001	10.0		23.9		0.1
	2000	6.8		27.5		0.8

The difference between total segment allocated interest expense, depreciation and amortization, and capital expenditures and the corresponding consolidated amounts is attributable to the Company s corporate headquarters. The following reconciles total segment profit to consolidated income before taxes and cumulative effect of change in accounting principle (in millions):

	Year Ended December 31,		
	2002	2001	2000
Total segment profit	\$ 115.5	\$ 94.8	\$ 37.0
Other, net	0.7	(10.0)	(0.6)
Gain (loss) on divestitures		(5.2)	21.8
Goodwill amortization		(7.7)	(8.1)
Foreign exchange losses	(5.4)	(2.1)	(0.4)
Net corporate operating, interest and other income and expense not allocated to			
segments	(6.4)	(4.8)	(4.3)

Consolidated income before taxes and cumulative effect of change in accounting			
principle	\$ 104.4	\$ 65.0	\$45.4

BIO-RAD LABORATORIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following reconciles total segment assets to consolidated total assets (in millions):

	December 31,	
	2002	2001
Total segment assets	\$ 566.2	\$ 499.8
Cash and other current assets	87.6	97.2
Net property, plant and equipment excluding segment specific gross machinery and equipment	(45.8)	(33.3)
Goodwill	69.5	77.7
Other long-term assets	43.2	42.6