As filed with the Securities and Exchange Commission on February 14, 2005

Registration No. 333-____

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form S-8

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

Seitel, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

1382 (Primary Standard Industrial Classification Code Number) 76-0025431 (I.R.S. Employer Identification No.)

10811 S. Westview Circle Building C, Suite 100 Houston, Texas 77043 (713) 881-8900

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Seitel, Inc. 2004 Stock Option Plan Non-Employee Director Non-Plan Restricted Stock Award Agreements Non-Qualified Stock Option Agreement for Fred Zeidman (Full title of the plans)

Robert D. Monson President and Chief Executive Officer Seitel, Inc. 10811 S. Westview Circle Building C, Suite 100 Houston, Texas 77043 (713) 881-8900

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to Be Registered	Amount To Be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, par value \$0.01	8,667,492	\$1.26	\$10,921,039	\$1,285.41
Common Stock, par value \$0.01	100,000 (3)	\$1.30	\$130,000	\$15.30
Total	8,767,492	N/A	\$11,051,039	\$1,300.71

(1) Pursuant to Rule 416 of the Securities Act of 1933, as amended, the number of shares registered hereby shall also be deemed to include such indeterminate number of additional shares of common stock that may be issued or have been issued upon exercise of options solely as a result of provisions to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) and (h) under the Securities Act of 1933, as amended, based on the average of the high and low sale prices for the common stock on the NASDAQ Over-the-Counter Bulletin Board on February 11, 2005.

(3) These shares represent shares of common stock issuable upon exercise of certain outstanding options of the Registrant held a certain selling stockholder and, pursuant to Rule 457(h) of the Securities Act of 1933, as amended, the proposed maximum offering price and the proposed maximum aggregate offering price are estimated on the basis of the per share exercise price of each of such options solely for purposes of calculating the registration fee.

REOFFER PROSPECTUS

1,167,492 Shares

Seitel, Inc.

Common Stock

This reoffer prospectus relates to the offer and sale from time to time of up to 1,167,492 shares of our common stock by the selling stockholders named in this reoffer prospectus. This includes 1,129,032 shares of restricted stock granted to non-employee directors and an executive officer under the Seitel, Inc. 2004 Stock Option Plan (the "Plan") at various times prior to the date of this reoffer prospectus, and 38,460 shares of our common stock issued to non-employee directors pursuant to certain non-plan restricted stock award agreements as of July 21, 2004. The selling stockholders may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at other negotiated prices. A selling stockholder may sell none, some or all of the shares offered by this reoffer prospectus. We cannot predict when or in what amounts a selling stockholder may sell any of the shares offered by this reoffer prospectus. We will not receive any of the proceeds from the sale of shares by the selling stockholders.

Our common stock is traded on the NASDAQ Over-the-Counter Bulletin Board under the symbol "SELA.OB." On February 10, 2005, the closing price for our common stock was \$1.31.

INVESTING IN OUR COMMON STOCK INVOLVES RISKS. CONSIDER CAREFULLY THE RISK FACTORS BEGINNING ON PAGE FIVE OF THIS REOFFER PROSPECTUS.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this reoffer prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this reoffer prospectus is February 14, 2005.

You should rely only on the information contained in this reoffer prospectus. We have not authorized any other person to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. The information in this reoffer prospectus is accurate as of the date on the front cover.

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The Company

Seitel, Inc.

We are a leading provider of seismic data and related geophysical services to the oil and gas industry in North America. Our products and services are used by oil and gas companies to assist in the exploration for and development and management of oil and gas reserves. We have ownership in an extensive library of proprietary onshore and offshore seismic data that we have accumulated since 1982 and that we offer for license to a wide range of oil and gas companies. Our customers utilize this data, in part, to assist their identification of new geographical areas where subsurface conditions are favorable for oil and gas exploration, to determine the size, depth and geophysical structure of previously identified oil and gas fields, and to optimize the development and production of oil and gas reserves.

We believe that our library of onshore seismic data is one of the largest available for licensing in the United States and Canada. We also have ownership in a library of offshore data covering parts of the U.S. Gulf of Mexico shelf and certain deep water areas in the western and central U.S. Gulf of Mexico. We regularly add to the size of our seismic data library by conducting new seismic data creation programs funded (or "underwritten") substantially by our customers in exchange for a license granting exclusive access to newly acquired data for a limited period of time. We also acquire entire seismic libraries from oil and gas companies which have discontinued their exploration and production focus in a particular geographical area and no longer require ownership of the library or which have determined to sell their library for financial purposes. These acquisitions are sometimes funded with cash, but typically are structured as non-monetary exchanges of seismic data, whereby we acquire ownership of existing data from customers in exchange for an assignment of a non-exclusive license to use data from our library. We also create new value-added products by applying advanced seismic data processing or other quantitative analytical techniques to selected portions of our library.

Our seismic data library includes both onshore and offshore three-dimensional ("3D") and two-dimensional ("2D") data and offshore multi-component data. We have ownership in over 33,000 square miles of 3D and approximately 1.1 million linear miles of 2D seismic data concentrated primarily in the major North American oil and gas producing regions. The majority of our seismic data library covers onshore regions within North America, with a geographic concentration on the onshore and transition zone of the U.S. Gulf Coast extending from Texas to Florida, western Canada, Mississippi, eastern Texas, the Rocky Mountain region and northern Louisiana. Most of our remaining seismic data library covers the offshore Gulf of Mexico and eastern Canada. We conduct our seismic data creation and licensing business through two wholly owned subsidiaries, Seitel Data, Ltd. in the United States and Olympic Seismic Ltd. in Canada.

To support our seismic data licensing business, we maintain warehouse and electronic storage facilities at our Houston, Texas headquarters and our Calgary, Alberta location. Through our wholly owned subsidiaries, Seitel Solutions Ltd. and Seitel Solutions Canada Ltd. (collectively, "Solutions"), we offer the ability to access and interact with the seismic data we own and market via a standard web browser and the Internet.

Refocused Operations

Because our historical success was built around our seismic expertise and the quality of our library, we have refocused our operations on our core competency of seismic data licensing. In 2002, we sold substantially all of our assets which engaged in the exploration for and development, production and sale of natural gas and oil, and we are marketing what little amount remains of such assets for sale. By exiting the exploration and production sector, we believe we have refocused our operations and are well-positioned to achieve success in the future.

Industry Conditions

The overall demand for seismic data and related geophysical services is dependent upon spending by oil and gas companies for exploration, production, development and field management activities which, in turn, is driven largely by present and expected future prices for crude oil and natural gas. This is impacted by global events and economic, tax and environmental considerations. Weak global economic conditions combined with an oversupply of oil and gas led to a weak commodity price environment in the latter half of 2001, which led to a decrease in capital spending by our customers on seismic data and geophysical services in late 2001 and the first half of 2002. Since then, however, the relative strengthening of economic conditions, the global political environment and colder weather in the United States have resulted in dramatic price increases. As of December 17, 2004, oil and gas prices were \$46.28 per barrel and \$7.30 per mcf, respectively, or 74% and 88% above their five-year average.

In addition to commodity prices, the U.S. and Canadian onshore rig counts have also increased significantly since 2002, reaching an average onshore rig count of 1,417 rigs for the nine months ended September 30, 2004, well above the five-year average onshore rig count of 1,097 rigs.

The attractive commodity price environment has been a catalyst for the increase in exploration and production spending in both the U.S. and Canada. Since the end of 1999, U.S. exploration and production annual spending increased from \$22.0 billion to \$50.5 billion, and Canadian exploration and production annual spending increased from \$9.2 billion to \$14.2 billion, representing average annual increases of 23% and 11%, respectively. The recent level of high commodity prices has resulted in many oil and gas companies focusing their efforts on development drilling to produce existing reserves rather than expending time and capital on exploration. As a result, we believe some exploration spending in the industry has been postponed. We do not believe this recent situation represents a long-term trend. Industry analysts estimate oil and gas reserves are being depleted at a rate of 5% to 10% per year for the major oil and gas operators. As a result, there is an increasing need in the oil and gas industry to continue exploration activity and replace such reserves.

Another factor which we believe is an indication of the improved condition of the oil and gas industry is the equity performance of publicly traded exploration and production companies. Over the past five years, the S&P small-cap and mid-cap exploration and production indices have increased an average of 19% and 21% per year, respectively. This performance is a result of increased commodity prices as well as the companies' abilities to gain attractive returns on their increased capital spending. To maintain their success, these companies will have to continue to find new and exploit existing oil and gas reserves, which will require significant amounts of capital spending. Many of these companies are our clients and are representative of the types of clients we target for our products and services.

Attractive commodity pricing, strong rig counts, the need to replace oil and gas reserves, and the favorable performance of oil and gas companies are expected to continue. Barring unforeseen world events and economic conditions, we anticipate improved seismic industry market conditions.

Our Current Strategies

We have implemented a plan to refocus our activities, both functionally and geographically, on areas in which we have historically experienced meaningful success or in which we believe we can achieve significant growth in the future. As a result, we made some changes to our operating philosophy, including:

• discontinuation of our oil and gas exploration and production activities and disposal of substantially all of our oil and gas assets and properties;

•

discontinuation of cash investments for recording new data in the offshore U.S. seismic market, which is dominated by competitors who deploy their own marine vessels and field equipment to service their own data libraries;

- discontinuation of additional capital investments in seismic data in geographical areas such as Alabama, Michigan and North Dakota because we do not believe these areas have sufficient revenue producing potential; and
- reduction of the mission for our Solutions division to focus on internal requirements with a very limited participation in the external market in the near term.

To complement the fundamental changes made to our operating philosophy, management implemented cost reduction measures in the second half of 2002, including reductions in our work force, the consolidation of our Houston office location (resulting in the relocation of our headquarters), the reduction of office space used in our Calgary operations, an overhaul of our compensation structure, and the imposition of strict controls on all spending.

In addition to the significant operating changes we made, we are guided by operating philosophies that are fundamental to the success of our business and that we believe make us unique compared with our largest competitors:

- We intend to continue to grow our seismic data library using a combination of recording new data, cash purchases, non-monetary exchanges and creating new value-added products from our existing data.
- We do not own or maintain seismic data gathering or field equipment and crews. Instead, we outsource these services, which gives us the flexibility to respond appropriately to changing market conditions, and renders our cash flows less susceptible to volatility. We believe this also enables us to select vendors with the best price, equipment and skill sets for a particular environment, geographical location or geophysical objective, and provides us with access to state-of-the-art equipment and emerging technologies.
- We leverage our strong geophysical, technical and field operating management with our third-party outsourcing to align our interests with those of our underwriting customers. We believe this has allowed us to become a leading provider in certain core areas where local expertise is important. We believe we have developed expertise in certain areas of southern Louisiana, Gulf Coast Texas, Alberta and northeast British Columbia, and that there are opportunities to continue expansion in these areas and to repeat these experiences in the U.S. Rocky Mountain region, northern Louisiana and certain selected areas of the market outside North America.
- We will not participate in speculative seismic data shoots. Instead, we seek significant underwriting levels before undertaking new acquisition projects, which is crucial to our success. Our goal is to attain

70% underwriting levels for our new seismic acquisition projects.

- We pursue an aggressive marketing strategy to licensing our seismic data library.
- We intend to maintain an extremely disciplined approach to making operating and capital expenditures.

Our Competitive Strengths

We believe that we have the following competitive strengths:

Leading Market Position. Within our industry, we are considered to be one of the leading providers of seismic data in North America. We believe our library of onshore 3D seismic data is one of the largest available for licensing in the U.S. and Canada. We have ownership of over 33,000 square miles of 3D seismic data, the majority of which is concentrated primarily in the onshore Gulf Coast of Texas, Louisiana and Mississippi, western Canada and the offshore Gulf of Mexico. In addition, we have ownership in 1.1 million linear miles of 2D seismic data, which we believe makes us one of the largest providers of 2D data in North America.

Data Ownership Provides the Opportunity to Realize Long-Term Revenue Streams. We own our seismic data and are able to license the data an unlimited number of times, allowing for a lengthened life of our seismic data library. The ability to license the seismic data multiple times, as well as the commercial longevity of our seismic data, is a result of many factors, including multiple interpretations of the same data set, changes in ownership of mineral interests, new discoveries of hydrocarbons, advances in drilling and production technology, creation of oil and gas distribution infrastructures, and the advent of new seismic processing techniques. Most of our data is expected to generate revenues for 10 years or more. In some instances, samples of our older 2D data are still being licensed after 25 years. The current weighted average of our 3D onshore data library is 3.5 years. We believe there is minimal obsolescence risk regarding our seismic library.

Low Cost Business Model. In order to remain profitable in volatile business cycles, we believe it is essential to have a low cost operating structure. We strive to maintain an efficient base of assets and employees with which to conduct our operations. We do not own seismic acquisition equipment or employ seismic acquisition crews, but rather, engage third-party contractors with qualified equipment on an as-required basis to shoot new data. We believe our decision to engage third party contractors on an as-required basis results in substantially less volatility in our cash flows by allowing us to respond more quickly to changes in the demand for our products and services and minimizing our ongoing capital requirements. We do not participate in speculative seismic shoots and impose strict capital investment thresholds with targeted underwriting levels.

Leading Provider in Dominant Areas. Onshore seismic data collection requires a high degree of technical expertise, extensive permitting and geographical knowledge. Over the past 20 years, our personnel have developed a strong reputation for having these necessary skills. We believe our vast experience, combined with our large and contiguous database, encourages customers looking to acquire data in our area of operations to select us as their provider. We also believe that our experience and relationships with the relevant permitting agencies give us an advantage over our competitors.

Diversified Customer Base. We market our seismic data to over 1,300 customers in the oil and gas industry, and we have license arrangements with in excess of 1,000 customers. In 2003, four of our top ten customers were rated investment grade by Standard & Poor's, none of our customers accounted for more than 10% of total revenues, and our top 10 customers accounted for approximately 40% of total revenues. We have been providing seismic data to several of our largest customers for over 10 years.

Our Plan of Reorganization

In February 2002, we determined that it was appropriate to change our revenue recognition policies for seismic data licensing and certain data creation contracts. As a result, we restated our results of operations for the nine months ended September 30, 2001, and for our fiscal year ended December 31, 2000. The restatement, coupled with poor first quarter 2002 financial results, caused our covenant default on our \$255 million principal amount of senior unsecured notes (referred to in this reoffer prospectus as the "Old Notes"). After such default, we and substantially all of our United States subsidiaries negotiated a series of standstill agreements with the initial holders of the Old Notes while the parties attempted to negotiate a restructuring. Our negotiations with the holders of the Old Notes were not successful and on June 6, 2003, certain of the holders of the Old Notes filed, under Chapter 11 of the United States Bankruptcy Code, involuntary petitions against us and sixteen of our subsidiaries that guaranteed the Old Notes. On July 22, 2003, we filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code. The involuntary cases were dismissed on July 25, 2003. The Bankruptcy Court confirmed our Third Amended Joint Plan of Reorganization, as modified, supplemented or amended (the "Reorganization Plan"), on March 18, 2004 and it became effective as of July 2, 2004.

Other Information

As used in this reoffer prospectus, unless the context otherwise requires, references to the "Company," "Seitel," "we," "us" or "our" mean Seitel, Inc., its subsidiaries and its interests in other entities. We were incorporated in the State of Delaware in 1982. Our principal executive offices are located at 10811 South Westview Circle Drive, Suite 100, Building C, Houston, Texas 77043, and our telephone number at that address is (713) 881-8900. Our website is located at *www.seitel.com*. Information contained on our website is not a part of this reoffer prospectus.

Risk Factors

In considering whether to purchase our common stock, we urge you to carefully consider all of the information we have included in this reoffer prospectus and any reoffer prospectus supplement. In particular, we urge you to carefully consider the risk factors described below and other information contained in this reoffer prospectus. In addition, we urge you to read "Forward-Looking Statements," where we describe additional uncertainties associated with our business and forward-looking statements in this reoffer prospectus.

Our substantial level of indebtedness could adversely affect our financial condition.

We have a significant amount of leverage and interest expense resulting from new indebtedness incurred in the financing and other transactions completed in connection with the Reorganization Plan, indebtedness of our Canadian subsidiaries, and other indebtedness in respect of certain capital lease obligations. Subject to certain restrictions and limitations in the indenture and in our new revolving credit facility, we may incur additional indebtedness.

On the effective date of the Reorganization Plan, we completed the sale of our outstanding 11¾% Senior Notes (the "Senior Notes"), which were issued at an original issue discount. These proceeds were used to partially fund payments of allowed creditors' claims required under the Reorganization Plan. On April 16, 2004, we entered into a new revolving credit facility with Wells Fargo Foothill, Inc. ("WFF") pursuant to which a revolving loan commitment of \$30 million, subject to borrowing base limitations, was made available to us for borrowing on the effective date of the Reorganization Plan. Permitted borrowings under the new revolving credit facility will be used by us from time to time to fund our working capital requirements. Accordingly, while the principal amount of our indebtedness has been reduced, our annual interest expense is higher than it was prior to the effective date of the Reorganization Plan and our total annual debt service requirements continue to be substantial. The funds required to satisfy these requirements,

which will derive principally from our operating cash flows, will not be available for working capital or to make investments in the future growth and development of our business.

As of September 30, 2004, we and the guarantors of the Senior Notes had approximately \$191.8 million of total indebtedness, including \$2.8 million of secured indebtedness, and our consolidated annual debt service requirements together with the guarantors' aggregated approximately \$24.7 million, which is approximately \$4.2 million higher than our historical annual debt service. Although we issued \$193 million aggregate principal amount at maturity of Senior Notes, such Senior Notes were issued at a discount of 2.325% resulting in gross proceeds to us of approximately \$188.5 million. Thus, while not receiving gross proceeds equal to the principal amount of the Senior Notes, we are obligated to repay the full principal amount thereof at maturity and, subject to certain exceptions, we may not optionally redeem the Senior Notes prior to maturity.

Our high level of indebtedness and annual debt service requirements could have important consequences to you. For example, it could:

- require us to dedicate a substantial portion of our cash flow from operations to interest and principal payments on our indebtedness, thereby reducing the availability of our operating cash flows for other purposes, such as capital expenditures, funding seismic data acquisitions and working capital;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- increase our vulnerability to general adverse economic and industry conditions;
- make it more difficult for us to satisfy our obligations on the Senior Notes;
- expose us to fluctuations in the interest rate environment because the new revolving credit facility is at a variable rate of interest; and
- limit our ability to borrow additional funds.

Our ability to make required payments of principal and interest on borrowings under our new revolving credit facility and in respect of the Senior Notes, incur additional indebtedness, and comply with our various debt covenants, will depend primarily on our ability to generate substantial operating cash flows. We expect to obtain the funds necessary to pay our operating and other expenses and principal and interest on the Senior Notes, borrowings under our new revolving credit facility and our other indebtedness, from our operating cash flows and, if required, from additional borrowings (to the extent available under our new revolving credit facility and otherwise subject to our borrowing base). Our ability to satisfy our payment obligations, therefore, depends substantially on our future operating and financial performance, which necessarily will be affected by, and subject to, industry, market, economic and other factors. We will not be able to predict or control many of these factors, such as economic conditions in the markets where we operate and competitive pressures.

If, for any reason, we do not have sufficient funds from operating cash flows, cash and cash equivalents on hand, and borrowings available under our new revolving credit facility to pay principal and interest, when due, on the Senior Notes and on our other outstanding debt obligations (including borrowings under the new revolving credit facility), we

Our substantial level of indebtedness could adversely affect our financial condition.

will be required to seek to refinance all or a portion of our existing debt, sell assets or seek to borrow additional funds or raise additional equity capital. We cannot guarantee that we would be able to complete any of the aforementioned refinancing transactions on terms that are commercially reasonable or otherwise acceptable to us, if at all. In addition, the terms of our agreements governing our indebtedness, including our new revolving credit facility and the indenture governing the Senior Notes, presently restrict us from implementing such refinancing transactions. The failure to generate sufficient operating cash flows could significantly and adversely affect the value of the Senior Notes and our ability to pay principal of and interest on the Senior Notes.

Our new revolving credit facility contains covenants requiring us to achieve and maintain certain financial results, and restricts, among other things, the amount of our capital expenditures and our ability to borrow money, grant additional liens on our assets, make particular types of investments and restricted payments, sell our assets, and merge or consolidate. Additionally, the indenture governing the Senior Notes contains covenants that, among other things, limit our ability to incur certain additional indebtedness, incur indebtedness that is subordinate to any other indebtedness unless such indebtedness is expressly subordinate to the Senior Notes and the guarantees, pay cash dividends or make other cash distributions on or repurchase or redeem for cash our capital stock, make certain investments, sell assets without using the net proceeds thereof as set forth in the indenture, make certain capital expenditures in excess of \$65 million plus unused excess cash flow (as defined in the indenture governing the Senior Notes) in any fiscal year, grant and permit certain liens, enter into sale-leaseback transactions, enter into agreements affecting the ability of our restricted subsidiaries to pay dividends, enter into transactions with affiliates, merge, consolidate or sell all or substantially all of our assets, and grant security interests or liens on our assets. In addition, the indenture governing the Senior Notes provides that subject to certain conditions, if, at the end of each fiscal year we have excess cash flow in excess of \$5 million, we will be required to use 50% of excess cash flow to fund an offer to repurchase the Senior Notes on a pro rata basis at 100% of the principal amount of the Senior Notes plus accrued and unpaid interest to the repurchase date. If such future repurchase offers are accepted, the funds expended would not otherwise be available to be used by us for other corporate purposes. Borrowings under the new revolving credit facility are secured by a first priority, perfected security interest in, and lien on, all of our U.S. tangible and intangible assets, and we have pledged to WFF all of the issued and outstanding capital stock of our U.S. subsidiaries. Any default in respect of these covenants could materially and adversely affect our ability to conduct our business in the ordinary course, enter into business transactions and impair our rights under our other commercial agreements.

Failure to comply with the SEC's final judgment of permanent injunction entered on consent against us could adversely affect our business, and could subject us to further SEC investigations, enforcement action, criminal prosecution and significant penalties.

Seitel was the subject of a formal investigation by the SEC's Division of Enforcement. Seitel cooperated fully with the SEC during the course of its investigation, and reached a consensual resolution of the SEC's civil complaint resulting in its consent to a final judgment of permanent injunction (the "SEC Injunction") being entered on June 16, 2003 in the United States District Court for the Southern District of Texas, Houston Division. The agreement for the entry of the SEC Injunction was without admitting or denying the allegations in the SEC's complaint, which had alleged violations of the reporting, books and records, internal controls and proxy statement provisions of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and rules and regulations adopted under the Exchange Act. Seitel's chief executive officer and chief financial officer at the time of the events giving rise to the SEC's complaint have been replaced.

The SEC Injunction, by its terms, permanently restrains and enjoins us from, among other things: (1) filing with the SEC any annual report under the Exchange Act that contains any untrue statement of a material fact, which omits to state any material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or that omits to disclose any information required to be disclosed, (2) failing to make and keep accurate books, records and accounts, (3) failing to devise and maintain an adequate system of internal accounting controls and procedures, or (4) soliciting any proxy or consent or authorization in respect of any security registered under Section 12 of the Exchange Act in contravention of the SEC's proxy rules, or making any solicitation

Failure to comply with the SEC's final judgment of permanent injunction entered on consent against us could adver

by means of any proxy statement, form of proxy, notice of meeting or other communication subject to the SEC's proxy rules which, at the time and in light of the circumstances under which it is made, is false or misleading with respect to any material fact, or which omits to state any material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading.

If we fail to comply with any of the provisions of the SEC Injunction, such failure could adversely affect us, and the market price of our common stock and the Senior Notes could significantly decline.

Limitations on our ability to utilize net operating losses and other tax benefits may result in future net operating income being taxable income.

Companies, which have had a change in ownership as defined by the Internal Revenue Code of 1986, as amended (the "Code"), are subject to limitations on certain tax attributes. The testing period for ownership changes is a three-year moving period. We have had significant ownership changes since the effective date of our Reorganization Plan, but do not yet know whether there has been a change in ownership as defined by the Code. In any event, we do not expect a significant impact to our financial position or results of operation because we have a full valuation allowance against the tax attributes subject to these limitations.

Our internal controls for financial reporting and our disclosure controls and procedures may not prevent all possible errors that could occur. Internal controls for financial reporting and disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objective will be met.

Each quarter, our chief executive officer and chief financial officer evaluate our internal controls for financial reporting and our disclosure controls and procedures, which includes a review of the objectives, design, implementation and effect of the controls in respect of the information generated for use in our periodic reports. In the course of our controls evaluation, we seek to identify data errors, control problems and to confirm that appropriate corrective action, including process improvements, were being undertaken. The overall goals of these various evaluation activities are to monitor our internal controls for financial reporting and our disclosure controls and procedures will be maintained as dynamic systems that change (including with improvements and corrections) as conditions warrant.

In connection with the post-December 31, 2003 audit procedures conducted by Ernst & Young LLP, independent registered accounting firm ("Ernst & Young"), we identified, and Ernst & Young concurred, that a material weakness existed with our internal controls for financial reporting which arose from our Reorganization Plan having been confirmed on March 18, 2004, thereby requiring the expensing of an item carried by us as a prepaid expense and reduction of certain disputed pre-bankruptcy petition claims which had a partial offsetting effect. We accordingly amended our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004.

A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be satisfied. Our management has concluded that our internal controls for financial reporting and our disclosure controls and procedures are designed to give a reasonable assurance that they are effective to achieve their objectives. We cannot provide absolute assurance that all possible future control issues within our company have been detected. These inherent limitations include the real world possibility that judgments in our decision-making could be faulty, and that isolated breakdowns could occur because of simple human error or mistake. The design of our system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed absolutely in achieving our stated goals under all potential future or unforeseeable conditions. Because of the inherent limitations in a cost-effective control system, misstatements due to error could occur and not be detected.

Limitations on our ability to utilize net operating losses and other tax benefits may result in future net operating inco

Our business could be adversely affected by low exploration and development spending by oil and gas companies and by low oil and gas prices.

Our business depends upon exploration and development spending by oil and gas companies. Capital expenditures by oil and gas companies depend upon several factors, including actual and forecasted petroleum commodity prices and the companies' own short-term and strategic plans. These capital expenditures may also be affected by worldwide economic conditions. While we anticipate continued attractive commodity pricing, there can be no assurance that oil and gas prices will not decline in the future. Low oil and gas prices could result in decreased exploration and development spending by oil and gas companies, which could affect our seismic data business. Any future decline in oil and gas prices or sustained periods of reduced capital expenditures by oil and gas companies could result in a material adverse effect on our results of operations and cash flow.

A downturn in the availability of private equity could have a negative impact on the ability of our customers to raise capital necessary to purchase our seismic data.

Many of our customers consist of independent oil and gas companies and private prospect-generating companies that rely primarily on private equity capital to fund their exploration, production, development and field management activities. A significant downturn in the availability of private equity capital could have a material adverse impact on the ability of such companies to obtain funding necessary to purchase our seismic data which, in turn, could have a material adverse effect on our results of operations and cash flow.

We invest significant amounts of money in acquiring and processing seismic data for our data library with only partial underwriting of the costs by customers.

We invest significant amounts of money in acquiring and processing new seismic data to add to our data library. A portion of these investments is funded by customer underwriters or sponsors, while the remainder is sought to be recovered through future data licensing fees. The amounts of underwriting and sponsorship and of these future data licensing fees are uncertain and depend on a variety of factors, including the market prices of oil and gas, customer demand for seismic data in our library, availability of similar data from competitors and governmental regulations affecting oil and gas exploration. We may not be able to recover all of the costs of or earn any return on such investments. In periods where sales do not meet original expectations, we may be required to record additional amortization and/or impairment charges to reduce the carrying value of our data library, which charges may be material to operating results in any period. In addition, timing of the receipt of license fees can vary greatly from period to period. Technological or regulatory changes or other developments could also adversely affect the value of the data.

Because our business is concentrated in the U.S. Gulf Coast and Canada, it could be adversely affected by developments in the oil and gas business that affect these areas.

While we have seismic surveys in other areas, most of the seismic data in our library covers areas along the U.S. Gulf Coast, offshore in the U.S. Gulf of Mexico and in Canada. Because of this geographic concentration, our results of operations and our cash flow could be materially and adversely affected by events relating primarily to one of these regions even if conditions in the oil and gas industry worldwide were favorable.

The amounts we amortize from our data library each period have fluctuated in the past, and these fluctuations may result in future material impairment charges.

We amortize the cost of our seismic data library based, in part, on our estimates of future cash sales of data, excluding non-monetary exchanges and deferred revenue. Changes in estimates of future sales could result in impairment charges. Substantial changes in amortization rates can have a significant effect on our reported results of operations. Additionally, our accounting policy requires that we record amortization of our seismic data library based on the

Our business could be adversely affected by low exploration and development spending by oil and gas corbination

greater of the income forecast method or the straight-line method over the data's useful life. In the fourth quarter of 2002, we revised the estimated useful life of our seismic data library from ten years to five years for offshore data and from ten years to seven years for onshore data, resulting in additional amortization charges of \$45.7 million in the fourth quarter of 2002. In the third quarter of 2004, we further revised the estimated useful life of our seismic data and from seven years to four years for offshore data and from seven years to four years for offshore data and from seven years to four years for offshore data and from seven years to four years for onshore data, resulting in additional amortization charges of \$59.1 million in the third quarter of 2004.

During 2003 and 2002, Seitel recorded impairment charges of \$30 million and \$83 million, respectively, related to several different components of our data library. Additional impairment charges may also be required in the future based on industry conditions and our results of operations.

Extensive governmental regulation of our business affects our operations.

Our operations are subject to a variety of federal, provincial, state, foreign and local laws and regulations, including environmental laws. We invest financial and managerial resources to comply with these laws and related permit requirements. Failure to timely obtain required permits may result in delays in acquiring new data for the data library or cause operating losses. Because these laws and our business may change from time to time, we cannot predict the future cost of complying with these laws, and expenditures to ensure our compliance could be material in the future. Modification of existing laws or regulations or adoption of new laws or regulations limiting exploration or production activities by oil and gas companies could adversely affect us by reducing the demand for our seismic data.

Our competitors may have certain advantages.

Competition among geophysical service providers historically has been, and will continue to be, intense. Certain competitors have significantly greater financial and other resources than we do. These larger and better financed operators could enjoy an advantage over us in a competitive environment for contract awards and data sales and in the development of new technologies.

Our operating results may vary due to circumstances beyond our control.

Our operating results and available cash flow may, in the future, vary in material respects from quarter to quarter. Factors that could cause variations include (1) timing of the receipt and commencement of contracts for data acquisition, (2) our customers' budgetary cycles and their effect on the demand for geophysical activities, (3) seasonal factors and (4) the timing of sales and selections of significant geophysical data from our data library, which are not typically made in a linear or consistent pattern. Reduced actual or estimated future sales may result in a requirement to record impairment charges to reduce the carrying value of our data library. Such charges, if required, could be material to operating results in the periods in which they are recorded. For purposes of evaluating historical revenue trends, oil and gas prospectivity in particular regions, general economic conditions affecting our customer base, expected changes in technology and other factors that we deem relevant. The estimation of future cash flows is highly subjective, inherently imprecise and could change materially from period to period based on the factors described in the immediately preceding sentence, among others. Accordingly, if conditions change in the future, we may record further impairment losses relative to our seismic data library, which could be material to our results of operations in any particular reporting period.

We may face risks associated with our foreign revenue generating activities.

Portions of our revenues are derived from our Canadian activities and operations and, as a result, are denominated in Canadian dollars. We are subject to foreign currency exchange rate risk on cash flows related to sales, expenses, financing and investing transactions in currencies other than the U.S. dollar. Foreign currency fluctuations could result

The amounts we amortize from our data library each period have fluctuated in the past, and thesefluctuations may it

in a material adverse affect our results of operations.

We may be unable to attract and retain key employees.

Our success depends upon attracting and retaining highly skilled geophysical professionals and other technical personnel. A failure to continue to attract and retain such individuals could adversely affect our ability to compete in the geophysical services industry. We may confront significant and potentially adverse competition for key personnel, particularly during periods of increased demand for geophysical services. Our success also will depend to a significant extent upon the abilities and efforts of members of our senior management, the loss of whom could adversely affect our business. Moreover, certain of our senior executive officers have a very limited history of working together and may not be able to develop an effective working relationship. Our president and chief executive officer was appointed in December 2004, after serving as our chief financial officer since May 2004. Currently, we are working to fill our chief financial officer position. The failure of our executive officers and management personnel to develop an effective or sustained working relationship could require us to incur additional expenses and devote substantial senior management time and resources to identify qualified replacement personnel. We cannot be certain that our senior executives will continue to be employed by us for an indefinite period of time and, if they do, how long they will remain so employed. Our inability to attract and retain key personnel could have a material adverse effect on our ability to manage our business properly.

Mellon HBV and ValueAct Capital Partners, L.P. each own a large percentage of our common stock, which would enable them to influence the election of our directors and other matters requiring the vote of our stockholders.

Mellon HBV Alternative Strategies, LLC ("Mellon HBV") and its affiliates have represented to us that they beneficially own 36,518,051 shares (or 21.9%) of our outstanding common stock on a fully diluted basis. ValueAct Capital Partners, L.P. ("ValueAct") and its affiliates have represented to us that they own 20,330,063 shares (or 13.3%) of our outstanding common stock. This substantial ownership of our common stock enables Mellon HBV and ValueAct to significantly influence the election of our directors, with respect to which there is cumulative voting, and possibly other corporate matters and transactions that require stockholder approval.

Forward-Looking Statements

This reoffer prospectus contains forward-looking statements. Statements contained in this reoffer prospectus about Seitel's future outlook, prospects and plans, including those that express belief, expectation, estimates or intentions, as well as those that are not statements of historical fact, are forward looking. Terminology such as "may," "will," "should," "could," "might," "although there can be no assurance," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," the negative of such terms or other comparable and analogous or synonymous terminology are intended to identify forward-looking statements. Forward-looking statements represent our reasonable present belief and are based on our current expectations and assumptions with respect to future events. While we believe our expectations and assumptions are reasonable, they involve risks and uncertainties beyond our control that could cause the actual results or outcome to differ materially from the expected results or outcome. Such factors include, without limitation:

- our ability to comply with the terms of the SEC Injunction;
- the impact on our results of operations of our significant amount of debt and interest expense;

- our significant amount of debt service;
- our ability to obtain and maintain normal terms with our vendors and service providers;
- our ability to maintain contracts that are critical to our operations;
- any significant change in the oil and gas industry or the economy generally;
- changes in the exploration budgets of our seismic data and related services customers;
- actual customer demand for our seismic data and related services;
- the timing and extent of changes in commodity prices for natural gas, crude oil and condensate and natural gas liquids and conditions in the capital markets and equity markets during the periods covered by the forward-looking statements;
- our ability to obtain alternate debt or equity financing on satisfactory terms if internally generated funds are insufficient to fund our capital needs; and

• all of the factors in this reoffer prospectus appearing under the caption "Risk Factors." We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or any other reason. Also note that we provide a cautionary discussion of risks and uncertainties under "Risk Factors," beginning on page five of this prospectus. All forward-looking statements attributable to Seitel or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this reoffer prospectus. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this reoffer prospectus may not occur.

The information in this reoffer prospectus is not a complete description of our business or the risks associated with an investment in our securities. There can be no assurance that other factors will not affect the accuracy of these forward-looking statements or that our actual results will not differ materially from the results anticipated in such forward-looking statements. While it is impossible to identify all such factors, factors which could cause actual results to differ materially from those estimated by us include, but are not limited to, those factors or conditions described under "Risk Factors."

Unaudited Pro Forma Consolidated Financial Data

The Unaudited Pro Forma Consolidated Financial Data contained in our prospectus dated January 10, 2005, on pages 42 through 45, which was filed pursuant to Rule 424(b) on January 12, 2005, is incorporated herein by reference.

Where You Can Find More Information

This reoffer prospectus constitutes a part of a registration statement on Form S-8 that we filed with the SEC under the Securities Act of 1933, as amended (the "Securities Act"). This reoffer prospectus does not contain all the information set forth in the registration statement. You should refer to the registration statement and its related exhibits and schedules for further information about our company and the shares offered in this reoffer prospectus. Statements contained in this reoffer prospectus concerning the provisions of any document are not necessarily complete and, in each instance, reference is made to the copy of that document filed as an exhibit to the registration statement or otherwise filed with the SEC, and each such statement is qualified by this reference. The registration statement and its exhibits and schedules are on file at the offices of the SEC and may be inspected without charge.

We file annual, quarterly, and special reports, proxy statements and other information with the SEC. You can read and copy any materials we file with the SEC at the SEC's public reference room at 450 Fifth Street, N.W., Washington, D.C. 20549. You can obtain information about the operation of the SEC's public reference room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a Web site that contains information we file electronically with the SEC, which you can access over the Internet at http://www.sec.gov.

We are incorporating by reference in this reoffer prospectus information we file with the SEC, which means that we are disclosing important information to you by referring you to those documents. The information we incorporate by reference is an important part of this reoffer prospectus, and later information that we file with the SEC automatically will update and supersede this information. We incorporate by reference the documents listed below:

1) Our annual report on Form 10-K for the year ended December 31, 2003, filed on March 30, 2004.

2) Our quarterly reports on Form 10-Q: (i) for the quarter ended March 30, 2004, filed on May 10, 2004, as amended by Forms 10-Q/A filed on June 2, 2004 and June 9, 2004, (ii) for the quarter ended June 30, 2004, filed August 13, 2004; (iii) our quarterly report on Form 10-Q for the quarter ended September 30, 2004, filed on November 22, 2004.

3) Our current reports on Form 8-K filed on January 12, 2004, January 29, 2004, February 6, 2004, February 18, 2004, February 20, 2004, March 19, 2004, April 1, 2004, June 25, 2004, July 2, 2004, July 30, 2004, August 3, 2004, August 9, 2004, August 12, 2004, August 31, 2004, October 6, 2004, October 13, 2004, October 18, 2004, December 20, 2004, January 4, 2005 and January 7, 2005.

4) The description of our common stock contained in our registration statement on Form 8-A filed on June 28, 2004.

You may request a copy of these filings, which we will provide to you at no cost, by writing or telephoning us at the following address and telephone number:

Seitel, Inc.

10811 S. Westview Circle

Building C, Suite 100

Houston, Texas 77043

(713) 881-8900

Attention: Secretary

All documents filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (excluding any information in those documents that are deemed by the rules of the SEC to be furnished but not filed) after the date of this filing and before the termination of this offering shall be deemed to be incorporated in this reoffer prospectus and to be a part hereof from the date of the filing of such document. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for all purposes to the extent that a statement contained in this reoffer prospectus, or in any other subsequently filed document which is also incorporated or deemed to be incorporated by reference, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this reoffer prospectus.

Use of Proceeds

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders under this reoffer prospectus.

Dilution

Our net tangible book value at September 30, 2004 was a deficit of approximately \$11.2 million or \$0.07 per share. The offering of shares by the selling stockholders will not result in any dilution to our net tangible book value. The market price of shares being offered may not bear any reasonable relationship to our net tangible book value.

The Selling Stockholders

The selling stockholders may sell up to 1,167,492 shares of our common stock pursuant to this reoffer prospectus. This includes 1,129,032 shares of restricted stock granted under the Plan at various times prior to the dates of this reoffer prospectus, and 38,460 shares of our common stock issued to non-employee directors pursuant to certain non-plan restricted stock award agreements as of July 21, 2004. The following table sets forth certain information known to us concerning each of the selling stockholders. The shares are being registered to permit the selling stockholders to offer the shares for resale from time to time. See "Plan of Distribution."

Name	Shares of Common Stock Beneficially Owned Before Offering (1)	Number of Shares of Common Stock Offered Hereby (1)	Shares of Common Stock Beneficially Owned Follow Offering (2)	Percentage of Shares of Common Stock Owned After Offering (2)
Robert D. Monson (3)	1,000,000	1,000,000	-	*
Fred S. Zeidman (4), (5)	25,329	16,129	9,200	*
C. Robert Black (5), (6)	23,821	23,821	-	*
Kevin S. Flannery (5)	26,129	16,129	10,000	*
Jay H. Golding (5)	36,129	16,129	20,000	*
Ned S. Holmes (5), (6)	23,821	23,821	-	*
Robert Kelley (5), (6)	23,821	23,821	-	*
Charles H. Mouquin (5), (6)	232,713	23,821	208,892	*
J. D. Williams (5), (6)	23,821	23,821	-	*

* Less than 1%, based on 151,543,175 shares outstanding on January 21, 2005.

(1) Ownership is determined as of January 21, 2005 and in accordance with Rule 13d-3 under the Exchange Act. The actual number of shares beneficially owned and offered for sale is subject to adjustment and could be materially less or more than the estimated amount indicated depending upon factors, which we cannot predict at this time.

(2) Assumes all the shares offered hereby are sold to persons who are not affiliates of the selling stockholders and the selling stockholders sell no other shares they beneficially own.

(3) Mr. Monson is our president and chief executive officer, and was our chief financial officer from May 10, 2004 until December 15, 2004. The shares offered by Mr. Monson were issued to him on December 15, 2004, pursuant to a restricted stock agreement under the Plan. The 1,000,000 shares of restricted common stock vest one-third on each of December 15, 2005, December 15, 2006 and December 15, 2007.

(4) Mr. Zeidman is our chairman of the board of directors. He served as our interim president and chief executive officer from November 6, 2002 until December 6, 2002, and from October 5, 2004 until December 15, 2004. Mr. Zeidman holds ten-year options to purchase 100,000 shares of common stock at an exercise price of \$1.30 per share, which are not included in this table. These options become exercisable on July 2, 2005, and were granted in connection with our Reorganization Plan.

(5) Messrs. Zeidman, Black, Flannery, Golding, Holmes, Kelley, Mouquin and Williams are members of our board of directors. Each of their shares offered include 16,129 shares of restricted common stock granted on January 3, 2005, pursuant to a restricted stock agreement under the Plan. These restricted shares vest on January 3, 2008.

(6) The shares offered include 7,692 shares of restricted common stock granted on July 21, 2004, pursuant to a restricted stock agreement. These restricted shares vest on July 21, 2007.

Plan of Distribution

We will not receive any of the proceeds from the sale of the common stock by the selling stockholders pursuant to this reoffer prospectus. The aggregate proceeds to the selling stockholders from the sale of the common stock will be the purchase price of the common stock less any discounts and commissions. A selling stockholder reserves the right to accept and, together with its agents, to reject, any proposed purchased of common stock to be made directly or through agents. This reoffer prospectus covers the resale of shares of our common stock by the selling stockholders. As used in this reoffer prospectus, "selling stockholders" includes holders of shares of our common stock received from a selling stockholder after the date of this reoffer prospectus and who received such shares by gift or by other transfer by such selling stockholder to an immediate family member of such stockholder, by will or through operation of the laws of descent and distribution, and their respective administrators, guardians, receivers, executors or other persons acting in a similar capacity.

The common stock may be sold from time to time to purchasers:

- directly by the selling stockholders and their successors, which includes their transferees, pledgees or donees or their successors; or
- through underwriters, broker-dealers or agents who may receive compensation in the form of discounts, concessions or commissions from the selling stockholders or the purchasers of the common stock. These discounts, concessions or commissions may be in excess of those customary in the types of transactions involved.

The selling stockholders and any underwriters, broker-dealers or agents who participate in the distribution of the common stock may be deemed to be "underwriters" within the meaning of the Securities Act. As a result, any profits on the sale of the common stock by selling stockholders and any discounts, commissions or concessions received by any such broker-dealers or agents may be deemed to be underwriting discounts, and "underwriters" within the meaning of the Securities Act will be subject to prospectus delivery requirements of the Securities Act. If the selling stockholders are deemed to be underwriters, the selling stockholders may be subject to certain statutory liabilities, including, without limitation, liabilities under Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Exchange Act. If the common stock is sold through underwriters, broker-dealers or agents, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions.

The common stock may be sold in one or more transactions at:

- fixed prices;
- prevailing market prices at the time of sale;
- prices related to such prevailing market prices;

- varying prices determined at the time of sale; or
- negotiated prices.

These sales may be effected in transactions:

- on any national securities exchange or quotation service on which the common stock may be listed or quoted at the time of the sale;
- in the over-the-counter market;
- otherwise than on such exchanges or services or in the over-the-counter market;
- through the writing and exercise of options, whether such options are listed on an options exchange or otherwise; or
- through the settlement of short sales.

These transactions may include block transactions or crosses. Crosses are transactions in which the same broker acts as an agent on both sides of the trade.

In connection with the sales of the common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions. These broker-dealers or other financial institutions may in turn engage in short sales of the common stock in the course of hedging their positions. The selling stockholders may also sell the common stock short and deliver common stock to close out short positions, or loan or pledge common stock to broker-dealers that in turn may sell the common stock.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The selling stockholders may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time under this reoffer prospectus, or under an amendment to this reoffer prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this reoffer prospectus.

To our knowledge, there are currently no plans, arrangements or understandings between any selling stockholders and any underwriter, broker-dealer or agent regarding the sale of the common stock.

At the time a particular offering is made, if required, a reoffer prospectus supplement will be distributed, which will set forth the names of the selling stockholders, the aggregate amount and type of securities being offered, the price at which the securities are being sold and other material terms of the offering, including the name or names of any underwriters, broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or reallowed to paid broker-dealers.

We cannot be certain that any selling stockholder will sell any or all of the common stock pursuant to this reoffer prospectus. Further, we cannot assure you that any such selling stockholder will not transfer, devise or gift the common stock by other means not described in this reoffer prospectus. In addition, any common stock covered by this reoffer prospectus that qualifies for sale pursuant to Rule 144 of the Securities Act may be sold under Rule 144 rather than under this reoffer prospectus. In addition, in some states the common stock may be sold unless it has been registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification is available and complied with.

The selling stockholders and any other person participating in the sale of the common stock will be subject to the Exchange Act. The Exchange Act rules include, without limitation, Regulation M, which may limit the timing of purchases and sales of any of the common stock by the selling stockholders and any other such person. In addition, Regulation M may restrict the ability of any person engaged in the distribution of the common stock and the ability of any person or entity to engage in market-making activities with respect to the common stock.

We have agreed to pay substantially all expenses incidental to the registration, offering and sale of the common stock to the public, other than commissions, fees and discounts of underwriters, brokers, dealers and agents.

Legal Matters

Certain legal matters with respect to the common stock offered hereby will be passed upon for us by Porter & Hedges, L.L.P., Houston, Texas. Any underwriters will be advised about other issues relating thereto by their own legal counsel.

Experts

The consolidated financial statements of Seitel, Inc. at December 31, 2003 and 2002, and for each of the three years in the period ended December 31, 2003, appearing in Seitel's Form 10-K for the year ended December 31, 2003, have been audited by Ernst & Young, LLP, independent registered public accounting firm, as set forth in their reports (which contain an explanatory paragraph describing conditions that raise substantial doubt about the company's ability to continue as a going concern as described in Notes A and B to the consolidated financial statements) thereon incorporated by reference. Such consolidated financial statements have been incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

PART II Information Required In Registration Statement

Item 3. Incorporation of Documents by Reference.

We are incorporating by reference into this registration statement information we file with the SEC, which means that we are disclosing important information to you by referring you to those documents. The information we incorporate by reference is an important part of this registration statement, and later information that we file with the SEC automatically will update and supersede this information. We incorporate by reference the documents listed below:

1) Our annual report on Form 10-K for the year ended December 31, 2003, filed on March 30, 2004.

2) Our quarterly reports on Form 10-Q: (i) for the quarter ended March 30, 2004, filed on May 10, 2004, as amended by Forms 10-Q/A filed on June 2, 2004 and June 9, 2004, (ii) for the quarter ended June 30, 2004, filed August 13, 2004; (iii) our quarterly report on Form 10-Q for the quarter ended September 30, 2004, filed on November 22, 2004.

3) Our current reports on Form 8-K filed on January 12, 2004, January 29, 2004, February 6, 2004, February 18, 2004, February 20, 2004, March 19, 2004, April 1, 2004, June 25, 2004, July 2, 2004, July 30, 2004, August 3, 2004, August 9, 2004, August 12, 2004, August 31, 2004, October 6, 2004, October 13, 2004, October 18, 2004, December 20, 2004, January 4, 2005 and January 7, 2005.

4) The description of our common stock contained in our registration statement on Form 8-A filed on June28, 2004.

You may request a copy of these filings, which we will provide to you at no cost, by writing or telephoning us at the following address and telephone number:

Seitel, Inc. 10811 S. Westview Circle Building C, Suite 100 Houston, Texas 77043 (713) 881-8900 Attention: Secretary

All documents filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (excluding any information in those documents that are deemed by the rules of the SEC to be furnished but not filed) after the date of this filing and before the termination of this offering shall be deemed to be incorporated into this registration statement and to be a part hereof from the date of the filing of such document. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for all purposes to the extent

that a statement contained in this registration statement, or in any other subsequently filed document which is also incorporated or deemed to be incorporated by reference, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The following is a summary of the statutes, charter and bylaw provisions or other arrangements under which the directors and officers of Seitel, Inc. are insured or indemnified against liability in their capacities as such.

Seitel is incorporated under the laws of the State of Delaware. Section 145 of the General Corporation Law of the State of Delaware (the "Delaware Statute") provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "proceeding"), other than an action by or in the right of such corporation, by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise (an "indemnified capacity"). The indemnity may include expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was illegal. Similar provisions apply to actions brought by or in the right of the corporation, except that no indemnification shall be made without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses which such officer or director has actually and reasonably incurred. The Delaware Statute further authorizes a corporation to purchase and maintain insurance on behalf of any indemnified person against any liability asserted against him and incurred by him in any indemnified capacity, or arising out of his status as such, regardless of whether the corporation would otherwise have the power to indemnify him under the Delaware Statute.

The amended and restated certificate of incorporation of Seitel and the by-laws of Seitel provide that Seitel shall indemnify its directors and officers to the full extent authorized by law. Moreover, the amended and restated certificate of incorporation of Seitel provides that no director shall be liable to Seitel or its stockholders for monetary damages for breach of his or her fiduciary duty as a director, provided that nothing contained therein shall eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to Seitel or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law, (iii) under Section 174 of the General Corporation Law of the State of Delaware or (iv) for any transaction for which the director derived an improper personal benefit. If the General Corporation Law of the State of Delaware is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of Seitel shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

Seitel has purchased insurance on behalf of its directors and officers against certain liabilities that may be asserted against, or incurred by, such persons in their capacities as directors or officers of the registrant, or that may arise out of

their status as directors or officers of the registrant, including liabilities under the federal and state securities laws.

Item 7. Exemption from Registration Claimed.

The 1,167,492 shares of restricted stock registered for resale by this registration statement were issued to certain directors and an executive officer of the Company as inducement or incentive awards. These grants were exempt from registration pursuant to Section 4(2) of the Securities Act.

Item 8. Exhibits.

The following exhibits are filed herewith pursuant to the requirements of Item 601 of Regulation S-K:

Exhibit

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<u>No.</u>
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Description of Exhibit

- 4.1 Seitel, Inc. 2004 Stock Option Plan (incorporated by reference from Exhibit 10.1 to the Company's registration statement on Form S-4, as filed with the SEC on December 21, 2004, File No. 333-121476).
- 4.2*Form of Restricted Stock Award Agreement for employee grants made under the Seitel, Inc. 2004 Stock Option Plan.
- 4.3*Form of Non-Employee Director Restricted Stock Agreement for grants made under the Seitel, Inc. 2004 Stock Option Plan.
- 4.4*Restricted Stock Agreement for Robert D. Monson dated December 15, 2004.
- 4.5*Stock Option Agreement for Fred S. Zeidman dated July 2, 2004.
- 4.6*Form of Non-Employee Director Restricted Stock Agreement for grants dated July 21, 2004.
- 5.1*Opinion of Porter & Hedges, L.L.P. as to the legality of the securities being registered.
- 23.1*Consent of Ernst & Young, LLP.
- 23.2*Consent of Porter & Hedges, L.L.P. (included in Exhibit 5.1).
- 24.1*Power of Attorney (contained in signature page).
- * Filed herewith.

Item 9. Undertakings.

(a) The undersigned registrants hereby undertake:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided however, that paragraphs (a)(1)(i) and (a)(1)(i) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

2. That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

3. To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of any employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrants pursuant to the foregoing provisions, or otherwise, the registrants have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrants of expenses incurred or paid by a director, officer or controlling person of the registrants in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrants will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Houston, state of Texas, on the 14th day of February, 2005.

SEITEL, INC.

By: /s/ Robert D. Monson

Robert D. Monson

President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We the undersigned officers and directors of Seitel, Inc., hereby, severally constitute and appoint Robert D. Monson and Marcia H. Kendrick each of them singly, our true and lawful attorneys with full power to them and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-8 filed herewith and any and all pre-effective and post-effective amendments to said registration statement and any subsequent registration statement for the same offering which may be filed under Rule 462(b) and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Seitel, Inc. to comply with the provisions of the Securities Act of 1933, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto or to any subsequent registration statement for the same offering which may be filed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto or to any subsequent registration statement for the same offering which may be filed under Rule 462(b).

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	Title	Date
/s/ Robert D. Monson	President and Chief Executive Officer	February 14, 2005
Robert D. Monson		•
	(Principal Executive Officer)	
/s/ Fred S. Zeidman	Chairman of the Board of Directors	February 14, 2005
Fred S. Zeidman		
	Senior Vice President, Chief Accounting	February 14, 2005
	Officer, Interim Chief Financial Officer and	
/s/ Marcia H. Kendrick	Interim Secretary	
Marcia H. Kendrick	(Principal Financial and Accounting Officer)	
/s/ C. Robert Black	Director	February 14, 2005
C. Robert Black		
	Director	February 14, 2005
Kevin S. Flannery		
	Director	February 14, 2005
Jay H. Golding		-

/s/ Ned. S. Holmes Ned S. Holmes	Director	February 14, 2005
/s/ Robert Kelley	Director	February 14, 2005
Robert Kelley /s/ Charles H. Mouquin	Director	February 14, 2005
Charles H. Mouquin /s/ J.D. Williams	Director	February 14, 2005
J.D. Williams		

EXHIBIT INDEX

Exhibit

<u>No.</u>

Description of Exhibit

- 4.1 Seitel, Inc. 2004 Stock Option Plan (incorporated by reference from Exhibit 10.1 to the Company's registration statement on Form S-4, as filed with the SEC on December 21, 2004, File No. 333-121476).
- 4.2*Form of Restricted Stock Award Agreement for employee grants made under the Seitel, Inc. 2004 Stock Option Plan.
- 4.3*Form of Non-Employee Director Restricted Stock Agreement for grants made under the Seitel, Inc. 2004 Stock Option Plan.
- 4.4*Restricted Stock Agreement for Robert D. Monson dated December 15, 2004.
- 4.5*Stock Option Agreement for Fred S. Zeidman dated July 2, 2004.
- 4.6*Form of Non-Employee Director Restricted Stock Agreement for grants dated July 21, 2004.
- 5.1*Opinion of Porter & Hedges, L.L.P. as to the legality of the securities being registered.
- 23.1*Consent of Ernst & Young, LLP.
- 23.2*Consent of Porter & Hedges, L.L.P. (included in Exhibit 5.1).
- 24.1*Power of Attorney (contained in signature page).